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UNIVERSITY OF ALBERTA

COGNITIVE DEVELOPMENT: A FACTOR IN EARLY-ADOLESCENT SUICIDAL BEHAVIOR

BY

FLORENCE DANFORTH PERCY

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A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of **MASTERS OF EDUCATION.**

IN

COUNSELING AND SCHOOL PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1994

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled **COGNITIVE DEVELOPMENT: A FACTOR IN EARLY-ADOLESCENT SUICIDAL BEHAVIOR** submitted by **FLORENCE DANFORTH PERCY** in partial fulfillment of the requirements for the degree of **MASTER OF EDUCATION** in **COUNSELING AND SCHOOL PSYCHOLOGY**.

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Dr. D. Wangler

DATE: June 24, 1994

DEDICATION

To David, my best friend, with whom I share my life.

THESIS ABSTRACT

In Canada, suicide is, after accidents, the second leading cause of death of people aged ten to nineteen years (Suicide in Canada, 1987). Suicide comprises fifteen percent of all fatalities for this age group. While the incidence of suicide among this group is low in comparison to other age groups, it has shown a rapid rate of increase in the last twenty years. This thesis is concerned with suicide among youngsters in the early stages of adolescence, between the ages of 10 to 14 years. This topic deserves attention, for although there have been studies of suicide among youth aged 15 to 24 years (Blumenthal & Kupfer, 1990) and adults (Stillion, 1989), there is little literature dealing with suicide among early adolescents. The issue of suicide and suicidal behavior among the Native and Inuit populations was not addressed in this thesis. This issue is sufficiently important to warrant its own extensive research.

The lack of public and scholarly attention to suicide committed by children under age 10 or early adolescents aged 10 to 14 years is partly explained by the fact that in absolute numbers, relatively few suicide deaths occur in these two age groups. In addition, the idea that children or early adolescents might engage in suicide, suicidal behavior, or suicidal ideation seems incomprehensible to many adults (Blumenthal & Kupfer, 1990). Adults tend to look back on their childhood and teenage years through rose-colored glasses. That these two stages of development might be filled with depression, despair, or feelings of hopelessness is difficult for many adults to accept (Pfeffer, 1981; Hawton, 1986; Stillion, 1989; Acosta-Rua, 1991). Social taboos may also inhibit discussion of early adolescent suicide, as its occurrence among those who are not yet widely seen as responsible for their own actions may be assumed to reflect badly on the stricken family (Pfeffer, 1984).

In this theoretical thesis, the author provides examples that demonstrate a possible link between cognitive developmental changes in early adolescence and suicidal behavior in this age group. The focus of these cognitive changes is adolescent egocentrism as expressed in David Elkind's (1981) early adolescent cognitive concepts of the imaginary audience (an anticipated

reaction to one's thoughts, appearance and behavior) and the personal fable (I will not die because of my personal uniqueness). The author believes that these two cognitive concepts are additional factors in some early adolescent suicidal behavior.

In chapter one the author examined the extent of suicide and suicidal behavior among early adolescents and investigated methodological problems associated with suicide data collection. The author explored possible factors, contributing forces, and common myths associated with this phenomenon in chapter two. As well, a short discussion of the child's and early adolescent's concept of death is presented. This is followed in chapter three by a brief overview of the physical, social, and cognitive developmental changes which occur during early adolescence and might influence suicidal behavior.

In chapter four the developmental theories of Erikson and Piaget as they relate to early adolescent cognitive changes are presented as they provide the necessary background to David Elkind's theory of adolescent egocentrism. Also explored are possible connections between early adolescent egocentrism (a vital component of adolescent cognitive development), David Elkind's concepts of the imaginary audience and the personal fable and suicidal behavior in this age group. In chapter five the author discussed three major prevention methods currently used in schools to handle the increased frequency of suicidal behavior in youngsters. In chapter six the author draws together the conclusions gathered from the preceding chapters related to early adolescent suicidal behavior. Examples of cognitive changes common to early adolescence as they relate to the imaginary audience and the personal fable are submitted.

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CHAPTER ONE

Early Adolescent Suicide: The Scope of the Problem

This thesis is concerned with suicide among youngsters in the early stages of adolescence, between the ages of 10 to 14 years. This topic deserves attention, for although there have been studies of suicide among youth aged 15 to 24 years (Blumenthal & Kupfer, 1990) and adults (Stillion, 1989), there is little literature dealing with suicide among early adolescents.

For the purpose of my thesis, suicide statistics for early adolescence, i.e., ages 10 to 14 years, will be emphasized. This age grouping is also used by Statistics Canada, the National Center for Health Statistics (U.S.A.), and the World Health Organization. Some researchers refer to any self-inflicted death occurring before the age of 15 years as a completed childhood suicide, and a completed adolescent suicide is such a death occurring between 15 and 19 years (Shaffer & Fisher, 1981; Pfeffer, 1986). This thesis will refer to suicidal behavior in 10- to 14-year-olds as early adolescent suicide attempts, threats, or ideation. To clarify these terms they are accorded the following definitions:

> Suicide: an intentional act of self injury resulting in death (Mortensen, 1990).
>
> Suicidal Behavior (Parasuicide): a conscious non-fatal act of self-injury. Includes suicide attempts, suicide threats, and suicidal ideation (author's definition).
>
> Suicidal Ideation: conceptualized as a continuum from "nonspecific (e.g., 'Life was not worth living'), specific ('I wish I was dead'), ideation with intent ('I'm going to kill myself'), to ideation with a plan ('I'm going to kill myself with pills')" (Brent & Kolko, 1990, p. 271).

Where necessary, since the early adolescent stage of development does not begin precisely at age ten or conclude exactly at age fourteen, there will be some reference to statistics for under age ten and up to age sixteen years. It is difficult to obtain accurate statistics on the incidence of suicide among children and early adolescents. In fact, statistics for completed suicide for children under ten years are not kept nationally by either Canada or the United States (Pfeffer, 1986; Joffe

& Offord, 1990). Even when statistics are obtainable, the available data are often inconsistent, sometimes even contradictory, as the following survey will demonstrate.

Suicide:

According to Peck (1982), suicide among children younger than 14 increased 150% between 1961 and 1975 in the United States. Disputing this, Holinger (1979), also reporting United States data, states that in 1975 there were no reported suicides among those 5 to 9 years, but between 1961 and 1975, the suicide rates for 10- to 14-year-olds increased by only 50%. Giffen and Felsenthal (1983) concur with Holinger that there is a lack of reliable suicide rate data for children under ten years, but their research suggests that the suicide rates for 10- to 14-year-olds increased a mere 32% between 1968 and 1978 in the United States. Stefanowski-Harding (1990) suggests that a partial explanation for the discrepancies between the statistics gathered by Peck (1982), Holinger (1979), and Giffen and Felsenthal (1983) is their use of different comparative dates and different age groupings (is childhood under 10 years or 14 years?).

More recent studies continue to present inconsistencies, perhaps for the same reasons stated by Stefanowksi-Harding. Hafen and Frandsen (1986, p.10)) present statistics collected by the California Suicide Prevention and Crisis Center: between 1966 and 1986 the suicide rate among children 10 to 14 years "more than doubled"; among those 15 to 19 years of age, it "tripled." In one of the few references to Canadian research, Hafen and Frandsen (1986, p. 14) write that the suicide rate among young males increased 219% in the last two decades. They also report that Canada had the "sharpest increase among the youngest age group: a rate that tripled, from 5.7 to 17.4, in twenty years." Without definite age range classification the accuracy of Hafen and Frandsen's data should be questioned. Joffe and Offord (1990) report that the rate of completed suicides for both the 10 to 14 year and 15 to 19 year age groups in Canada and the United States increased by 50 to 75% between 1960 and 1985. Pfeffer (1989), a well known researcher in this field, writes that suicide rates for 15- to 19-year-olds have tripled in the last

thirty years; but for those under 14 years there are approximately 170 known suicides each year in the U.S.A. Even Pfeffer makes clarification of suicide rates difficult by comparing a thirty year growth rate with an actual annual death rate. Contradicting all of these earlier findings, Brent and Kolko (1990) report that most research has not shown a documented increase during the last thirty years in the suicide rate for 10- to 14-year-olds; the documented increase occurs only within the older adolescent and young adult age groups. And yet, C.J. Frederick (1985), using calculations compiled from figures supplied by the National Center for Health Statistics (U.S.A.), illustrates (see Table 1.1) that the suicide "rate has tripled for all males in each of the five-year-age ranges between 10 through 24 and more than doubled for females in those age groups" (p. 5). Brent and Kolko's (1990) oversight of Frederick's calculations demonstrates the need for an accurate collection of the statistical data related to suicide in children and adolescents.

Table 1.1

Percentage of Increase in Suicide Rates: 1955-1979*
(Children and Adolescents, Both Sexes, All Races)

Year	Ages 10-14			Ages 15-19			Ages 20-24		
	Rate	%Δ	Ratio	Rate	%Δ	Ratio	Rate	%Δ	Ratio
1979	0.8	166	(2.6x)	8.6	230	(3.3x)	16.8	200	(3.0x)
1955	0.3			2.6			5.6		

*Rates per 100,000 population annually in the United States.

%Δ = Percent change.

Data in parenthesis show the ratio of change between 1955 and 1979.

Adapted from calculations computed by Frederick, C.J. (1985). An introduction and overview of youth suicide. In M.L. Peck, N.L. Farberow, & R.E. Litman (Eds) Youth Suicide p.,4.

When collecting data to study violent death patterns, two major methodological problems are common: (1) underreporting and (2) data misclassification (Holinger & Offer, 1991). Underreporting may be either intentional or unintentional. If intentional, it occurs as a possible cover up in order to lessen the social stigma attached to suicide. Unintentional underreporting occurs when deaths are classified as accidents. Often poisonings and single car crashes are

labelled accidents when they were, in fact, suicides, but which are unverifiable as such. The second methodological problem — misclassification — involves different types of classification requirements between local and national data bases. Also methodological problems may arise through research based on overlapping age groups, conducted over different regions (e.g., the adolescent suicide rate is higher in the Western United States than in the Eastern U.S.), and data collected from different time periods within the last thirty years.

Stefanowski-Harding (1990) suggests two other reasons as explanations for inconsistencies in suicide statistics for children and early adolescents. First, parents and doctors may conceal the true nature of a child's death, either because of the social and religious taboo surrounding suicide or disbelief in the depth of a child's feelings of despair or hopelessness. Secondly, children generally do not leave notes (Stefanowski-Harding, 1990). Some jurisdictions in the United States require a note as proof of suicide, otherwise the death is classified as accidental. Although the current data confirm that suicide among children and 10- to 14-year-olds (less than 2 per 100,000 population) is a rare phenomenon, many national and international research publications, through their subject matter verify that suicide within childhood and early adolescence remains a reality (Stillion et al, 1989; Brent & Kolko, 1990; Stefanowski-Harding, 1990; Acosta-Rua, 1991; Dyck, 1991; Holinger & Offer, 1991).

It appears, then, that there is some disagreement among the researchers over the question whether suicide in these two age groups is increasing and, if so, over the actual rate of increase. However, when comparing age groups within general population death rates, the clear trend of the research in North America and Europe suggests that the incidence of suicide in children and adolescents has been increasing while remaining stable for the older population. For example, when comparing general or older population death rates, suicide ranks tenth as a cause of death in the United States (Stillion, 1989), eleventh as a cause of death in Canada (Mao, 1990), and sixth as a cause of death in the European Economic Community (Diekstra & Moritz, 1987).

However, for those aged 10 to 25 years, suicide is the second or third leading cause of death (Dyck, 1990). Peck and his colleagues (1985) present a table comparing the ten leading causes of death for ages 15 to 24 with "all ages" in the United States in 1979. These rankings are similar to the ranking of causes of death in Canada. For persons ages 15 to 24 years the ten leading causes of death, beginning with the most prevalent are: [1]**accidents**, [2]**homicide**, [3]**suicide**, [4]malignant neoplasma (cancer), [5]heart disease, [6]congenital anomalies, [7]cerebrovascular disease, [8]influenza and pneumonia, [9]diabetes mellitus, [10]anemia. For all other ages the leading cause of death is [1]heart disease followed by: [2]malignant neoplasma (cancer), [3]cerebrovascular diseases, [4]**accidents**, [5]chronic obstructive pulmonary disease, [6]influenza and pneumonia, [7]diabetes mellitus, [8]cirrhosis and chronic liver disease, [9]arteriosclerosis, and last [10]**suicide**. It is easy to see that for young people the most prevalent killers are not health related diseases, as they are for those older than 25 years, but are in some instances preventable occurrences.

Prior to 1965, suicide rate statistics increased directly with age (Peck, 1982). The lowest rates were among young people; the highest, among the elderly. In the 1960s this pattern began to reverse itself. At present one-fifth of all suicides committed yearly in the Western world are by adolescents, whereas, in 1950, the amount was calculated to be between one-eighth and one-ninth (Diekstra & Moritz, 1987). Even where birth rates for adolescents are declining, the suicide rate has still risen for the younger age groups (Diekstra & Moritz, 1987). In other words, even though the adolescent population is growing smaller, the incidence of suicide within this age group has been increasing. For example, in the United States, between 1961 and 1975 suicide rates among 15- to 24-year-olds increased 131% compared to only 22% for the general population (Holinger, 1978). The U.S. National Center for Health Statistics began reporting suicide rates for the 5 to 14 year age group in 1970. In that year the suicide rate for 5- to 14-year-olds was reported as 0.3 per 100,000 of the population. Fifteen years later in 1986, the rate for this age group was 0.8 per 100,000 or an increase of 267% (U.S. Bureau of the Census,

1987). Presently, suicide in the United States is the tenth cause of death for the general population and the third cause of death for 15- to 25-year-olds (Stillion, 1989).

In Canada (where health statistics report age divisions as 10 to 14 years and 15 to 19 years) there also has been an increase in suicide rates similar to those reported in the United States (Health and Welfare Canada, 1987). These statistics, as interpreted by Joffe and Offord (1990), suggest that suicide rates in 1985 for 10- to 19-year-olds were nearly twice to three times as high as in 1960.

A similar trend is evident in Alberta. Over the last five years the general population suicide rate has remained relatively stable at 4% (Office of the Chief Medical Examiner, 1990). Suicide accounts for 10% of all deaths in the 10 to 19 age group. Both the 10 to 14 year and 15 to 19 year age groups had the highest rates of increase of all age groups over the previous four years (Office of the Chief Medical Examiner, 1990). Rural Albertans in these two age categories seem to be at higher risk for death by suicide than young people living in urban centres.

Holinger and Offer's (1991) recent discussion of youth suicide, as related in the U.S. Report of the Secretary's Task Force on Youth Suicide, yielded many interesting observations. They suggest that it may be possible to predict future suicide rates within age groups; particularly the younger groups, by noting the increase and decrease of population growth. Holinger and Offer (1991) point out that the suicide rate per 100,000 population for adolescents remains fairly constant, even when this age group's (15 to 19 years) percentage of the population increases or decreases. In contrast, when the adult population numbers increase, the adult death by suicide rate decreases (Holinger & Offer, 1991). They report that, despite national attention over the rise of suicide in children and adolescents, these two age groups still have the lowest suicide rates for any age group in the United States. Further, they contend that children and adolescents are at a lower risk of dying by suicide — as a cause of death — than any other age group in the

United States. Even though Holinger and Offer (1991) attempt to assuage our concerns about suicide among 10- to 19-year-olds by attesting to its rarity, they are sufficiently concerned to ask two questions: What factors lessen the probability that children and adolescents will commit suicide? What "intrapsychic and sociologic" factors are most likely to create a suicidal outcome in 10- to 19-year-olds? (Holinger & Offer, 1991, p. 12). Possible explanations for these questions will be presented in chapter two of this thesis.

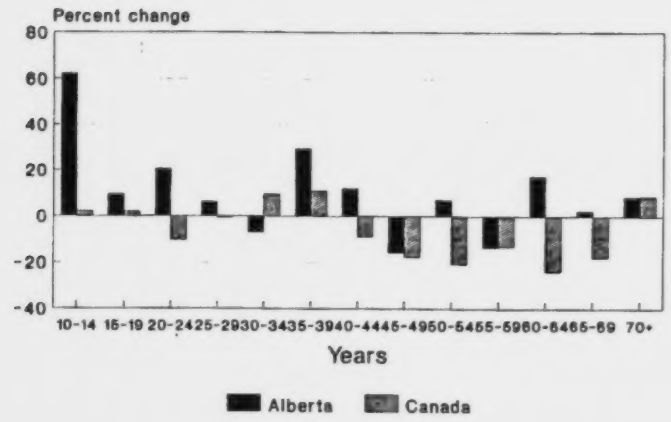
Despite the disagreements reported in the literature, most of the research seems to suggest that suicide, while rare among children and adolescents, has been increasing over the last thirty years. Most importantly, Holinger and Offer (1991) agree with the bulk of the research conducted in North American and Europe that suicide is the second or third leading cause of death among children and adolescents depending on the age range used: 10 to 19 years, 15 to 19 years, or 15 to 24 years (Hafen & Brandsen, 1986; Rosenberg et al, 1987; Diekstra and Hawton, 1987; Dyck, 1990; and Joffe & Offord, 1990). It has also been speculated that these studies may understate the incidence of early adolescent suicide. Accidents are the leading cause of death among these juvenile age groups, and it is felt that some deaths reported as accidents are actually suicides (McIntyre & Angle, 1972; Acosta-Rua, 1991).

From the preceding discussion, it can thus be concluded that the rate of suicide among early adolescents is increasing. In any event, the absolute numbers of suicides are sufficient to demand our attention. The following table (1.2) compares the percent change in male and female suicide rates between Alberta and Canada over a ten year period. It is interesting to note the dramatic increase in Alberta of suicide in the 10 to 14 year age group.

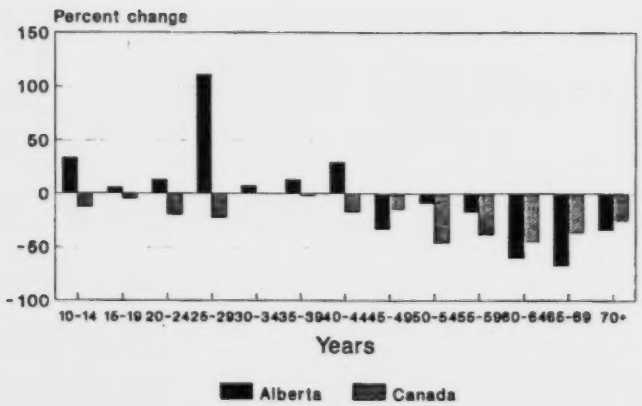
Table 1.2

Ten year change in suicide rates Alberta vs Canada

Males



Females



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In addition, suicide is of greater significance as a cause of death for the young than for other age groups, particularly the elderly. This can be said with certainty because, unlike other age groups, adolescents rarely die from causes other than accidents or suicide (Hawton, 1986; Brent & Kolko, 1990). Therefore, within this age group death by suicide is a major concern (Pfeffer, 1981; Hawton, 1986; Diekstra & Moritz, 1987; Dyck, 1987; Stillion et al, 1989; Stefanowski-Harding, 1990; Acosta-Rua, 1991). It is simply impossible to ignore the second or third leading cause of death in any group in society, and in particular in such a group that represents society's future.

Suicidal Behavior

Even though there is general agreement that suicide, although increasing, is rare among 10- to 14-year-olds; suicidal behavior is **not** rare (Peck, 1984; Pfeffer, 1984; Stillion et al, 1989; Dyck, 1990; Acosta-Rua, 1991; Lester, 1991). For the purpose of this thesis, suicidal behavior includes suicide attempts, suicide threats, and ideation.

I am in agreement with Pfeffer (1984) who believes that suicidal behavior in latency-age children is a complex issue involving many factors and that to divide it into types prevents adequate understanding. From her extensive research, Pfeffer (1984, p. 267) concludes that suicidal behavior in this age group should be viewed as a "continuous spectrum of behavior ranging from nonsuicidal, to suicidal ideas, suicidal threats, suicidal attempts and completed suicides." She has documented research that there is no difference in severity between the different aspects of suicidal behavior. Pfeffer (1984) believes that all facets of suicidal behavior should be viewed with genuine concern. As with the increased prevalence of suicide among early adolescents, there seems to be a concomitant increase in parasuicidal behavior. For example, Pfeffer's (1981) research suggests that in 1960, only 10% of a group of children randomly selected from an outpatient clinic, had "contemplated, threatened, or attempted" suicide.

However, as part of a comparable study conducted in 1980, Pfeffer (1981) found that 33% of the children had reported having suicidal actions or thoughts.

The following discussion will help to demonstrate the magnitude of the problem of suicidal behavior among 10- to 14-year-olds. We will first look at ratios of suicide attempts to completions. In 1980, the Committee on Adolescence of the American Academy of Pediatrics presented evidence that for every completed suicide the attempted suicide estimates ranged from 50 attempts to 200 attempts per death. In comparison, the ratio of attempts versus completions within the general population has been reported as less than 10 attempts for one completed suicide (Dyck, 1990).

According to Stillion and his colleagues (1989), age is also a factor in comparing suicide attempts versus completions. The ratio of suicide attempts per completed suicides is greater for children and early adolescents than for older adolescents and adults et. al., 1989). Peck (1984) confirms this age differential by writing that the above ratio may be between 5:1 and 10:1 for both the general population and the elderly. But for adolescents the ratio of suicide attempts per completed suicide may be as high as 25:1 or 50:1 (Peck, 1984).

Gender also plays a role in the comparison of suicide attempts versus completed suicides. It is well known that adolescent boys commit suicide two to three times as often as girls (Peck, 1984; Hafen and Frandsen, 1986; Hollinger & Offer, 1991). This sex ratio is reversed when attempted suicide occurs during adolescence. In other words, adolescent girls engage in parasuicidal behavior more often than boys of the same age (Peck, 1984; Joffe, Offord, & Boyle, 1988). Interestingly, research collected by Joffe and Offord (1990) suggests that latency age boys complete and attempt suicide more often than girls. In 1987, the U.S. Centers for Disease Control conducted the National Adolescent Student Health Survey. This was the first such survey since the 1960s to assess the extent to which adolescents in grade 8 (c. 13 years old) and grade

10 (c. 15 years old) in the United States might be at risk for several important health problems. In the section on suicide the study found that:

> 25% of the boys and 42% of the girls reported they had, at some time during their lives, seriously considered committing suicide. Eighteen percent of the girls and 11% of the boys reported they had actually tried to injure themselves in a way that might have resulted in their death. (Centers for Disease Control, 1989, p.148)

This study presents another example of gender differences where girls engage in more parasuicidal behavior than boys.

Although American statistics show that suicide is relatively rare for those under 19 years of age, approximately 2,000 deaths annually in the U.S.A., there may be as many as 2 million youths who engage in parasuicidal behavior each year (Smith & Crawford, 1986). Nevertheless, because educators and health care professionals consider "at risk" those youngsters who express any level of suicidal intent, ideation, or action, early adolescent suicidal behavior is a legitimate concern. In conclusion, Davis and Sandoval (1991) provide a realistic example that makes the foregoing statistical data tangible:

> If you were working in a high school with 2,000 students, given the data...presented, you would be likely to lose one student or former student to suicide about every five years, have somewhere between 168 and 400 attempt to kill or hurt themselves per year, and have 660 to 1,300 of your students at some time during that year walking about your campus considering suicide. Of course, the actual number of these that school-based personnel will hear about will be far fewer. (Davis & Sandoval, 1991; p. 16)

CHAPTER TWO

Early Adolescent Suicide: Factors, Motivation, Myths

The problem of collecting accurate mortality data for children and adolescents demonstrated in the preceding summary is also found in collecting and establishing accurate data on precipitating and causal factors in early adolescent suicidal behavior. It is difficult to establish the influence of demographic variables, death concept, depression, and motivation on suicidal behavior because large randomly selected groups of suicidal early adolescents are difficult to obtain (Pfeffer, 1981). As well, many studies provide worthwhile information but lose credibility when they fail to include a comparative non-clinical "normal" control group. This omission makes the generalization of causal factors to the larger community less accurate. As well, incorrect assumptions might suggest that causes other than the ones being directly studied could also contribute to early adolescent suicidal behavior. Therefore, when reviewing the research, it is important to be aware of the size of the sample under investigation and whether both clinical and non-clinical populations are included.

Background characteristics, predisposing variables, motivation, and myths associated with early adolescent suicidal behavior are addressed in chapter two. The discussion of research in chapter two suggests that early adolescent suicide may result from one or more of the following problems: an immature concept of death, impulsivity and risk taking, or incomplete cognitive development. David Elkind's theory of cognitive development and adolescent egocentrism and its relation to early adolescent suicidal behavior is addressed further in chapter four of the thesis.

Background Characteristics

Despite the absence of reliable data, many studies have isolated the following factors related to suicidal behavior in children and early adolescents: demographic variables, family influence and early experiences, and other contributing factors; such as depression, types of precipitating stresses, differences in age and developmental status, cognitive rigidity, and concepts of death (Pfeffer, 1981; Hawton, 1986; Spirito et al., 1989; Joffe & Offord, 1990).

Demographic Variables

There have been few extensive studies of the relationship between age, sex, race, or socioeconomic status and youthful suicide, due to the difficulty of selecting a large group of latency age suicidal children, (Pfeffer, 1981; Joffe & Offord, 1990). Some studies have concluded that suicidal behavior increases with age and at puberty (Toolan, 1962; Garfinkel & Golombek, 1974). Although the research findings are limited, an understanding of the demographic characteristics peculiar to suicidal early adolescents is necessary.

Gender differences are apparent in suicidal behavior in the 10 to 14 year age range. It is well documented in all age groups older than 14 years that females attempt suicide more than males but males complete suicide more than females. However, for children aged 6 to 14 years, males both attempt and complete suicide more often than females (Pfeffer, 1981; Hawton, 1986; Joffe & Offord, 1990). In adolescents 12 to 15 years, the rate of suicide attempts is higher for females (Hawton, 1986; Joffe & Offord, 1990). According to Joffe and Offord (1990), there has been a recent dramatic increase in wrist-slashing and self-poisoning by girls aged 14 to 16 years. Hawton (1986) suggests that self-poisoning may be seen as a more acceptable coping strategy by girls than by boys. He also found that boys resort to more lethal suicidal behavior (hanging, guns) when faced with sudden severe life difficulties. Where as girls resort to less lethal suicidal behavior (self-poisoning, wrist-slashing) when faced with unrelenting chronic life stress.

Hawton has several explanations for the large numbers of females who attempt suicide. He feels that girls may mature and face more adult problems, especially in relationships, earlier than boys. As well, Hawton suggests that boys may have different ways of dealing with stress and despair, such as: through the use of alcohol or drugs or aggressive behavior. In order to clearly determine the extent to which demographics are related to early adolescent suicidal behavior, future studies will have to include larger population samples and careful comparison to normal non-clinical control groups.

Family Characteristics - Early Life Experience

Family characteristics and early life experiences appear to have an important influence on youthful suicidal behavior. Several studies, using samples only drawn from clinical populations, identified unspecified family dysfunction as a factor in suicidal behavior in youngsters (McIntire & Angle, 1973; Shaffer, 1974; Pfeffer et al, 1979). These studies lacked non-clinical control groups for comparison, so that it is difficult to generalize their conclusions to a normal community population. Joffe & Offord (1990) believe that further study of both clinical and non-clinical samples is needed to identify specific family characteristics that increase the risk of suicidal behavior in children and adolescents.

In his review of the literature on contributing factors in attempted suicide Hawton (1986) found these features common to the family and early life situation of child and adolescent suicidal attempters: broken homes, family psychiatric disorder or suicidal behavior, and childhood maltreatment.

Broken homes. Hawton (1986) comments that broken homes where there has been a loss of a parent through death, separation, or divorce are a common factor in studies of attempted suicide in children and adolescents. Hawton's own research conducted in Oxford studied 50 adolescent self-poisoners; half aged 13 to 15 years and half aged 16 to 18 years. His research also included a comparison sample of adolescents from the general population. The results of his research confirm that suicidal adolescents come from broken homes with more than twice the frequency of non-suicidal adolescents. In summary, Hawton's findings (1986, p.70) are as follows:

Suicidal adolescents aged 13-15 years:	36% lived with one parent 12% lived with neither parent 48% **TOTAL** living in broken homes
Non-suicidal adolescents aged 13-15 years:	5.0% lived with one parent 11.4% lived with neither parent 16.4% **TOTAL** living in broken homes

Hawton states that his findings parallel those of a study conducted at the Toronto Hospital for Sick Children which compared 505 young attempters aged 6 to 20.9 years to a non-suicidal control group matched for age, sex, and time of visit to the hospital's emergency room (Garfinkel & Golombek, 1983). The Toronto study states that the attempters had experienced three times more parental separation or death and two times more parental divorce than the non-suicidal control group of adolescents. Two additional findings of the Toronto study are: (1) Eighty four percent (84%) of the control adolescents lived with both parents, compared with less than fifty percent (50%) of the attempters; (2) the attempters not living with both parents were 8 times more likely than the control group to be in group homes. The results of both these studies, as well as numerous others, indicate that parental absence is a factor in childhood and adolescent suicide (Pfeffer, 1981; Peck, Farberow & Litman, 1985; Smith & Crawford, 1986; Stillion et al, 1989). A similar finding is provided by Pfeffer (1991, p. 62) in the following chart developed as a result of her discussion of family factors that are precursors for suicidal behavior in young people.

Table 2.1

Factors that Increase or Decrease Chance of Youth Suicide

Harmful factors that increase risk:	Protective factors that decrease risk:
1. Lack of Social Support through:	1. Presence of Social Support found in:
Death of significant other	Empathy from adults and peers
Parental separation/divorce	Consistent availability of significant other
Numerous school changes	Consistent rules and life limits
Problems with peers	Stability in home and school situation
2. Dysfunctional Parental Behavior:	2. Personal Adaptive Skills:
Affective disorders	Stress acknowledgement
Suicidal behavior	Alternative solutions identified
Alcohol/drug abuse	Strong frustration tolerance
	Healthy self-esteem
3. Abuse in Home:	Cautious decision making
Sexual, physical or psychological	

Adapted from: Pfeffer, C.R.(1991). Family characteristics and support systems as risk factors for youth suicidal behavior.

Psychiatric disorder or suicidal behavior. A review of the research indicates that there is a relationship between parents who exhibit severe emotional problems, suicidal behavior, or psychiatric disorders and their children and early adolescents who complete or attempt suicide (Pfeffer, 1981; Garfinkel et al, 1982; Farberow, 1985; Hawton, 1986; Stillion et al, 1989; Fremouw et al, 1990). Research by Pfeffer (1986) suggests that parental suicidal behavior or preoccupation predisposes a child to suicide. She believes that this behavior may lead children to view suicide as an acceptable way of coping, particularly if they view death as a pleasant, reversible state. (Children's concept of death will be discussed later in this chapter). Garfinkel and Golombek's (1983) study in Toronto looked at family psychiatric disorders and found a high incidence of parental alcoholism and drug abuse in the fathers (60%) and mothers (33%) of young suicide attempters. Other researchers also report that parents of suicide attempters showed more low self esteem, depression and alcoholism than the parents of non-suicidal youngsters (Tishler & McKenry, 1982; Farberow, 1985).

Particular types of behavior and coping styles exhibited by parents are an important influence on the youngster's own methods of dealing with life's stressful events. If children see alcohol, drugs, depression, or aggressive behavior used consistently to cope with stress, then it appears that they are more likely to use them also.

Childhood maltreatment. In his review of the literature on child abuse and the relationship to suicide Hawton (1986), suggests that family violence is common among young attempters and suicidal children. Green (1978) studied 58 abused children, 29 neglected children and 30 normal children aged 5 to 12 years in New York City and reported "self destructive behavior" (i.e., self-biting, self-cutting, self-burning, hair pulling, head banging, suicide attempts, and suicidal threats and gestures) in 49.6% of the abused children. This was a significantly higher incidence than that reported for the neglected children (17.2%) and the normal control group (6.7%). Green explains that the risk for suicidal behavior is increased by the child's sense

of "worthlessness, badness, and self-hatred as a consequence of parental assault, rejection, and scapegoating."

A research study conducted by Kosky (1982), examined the hospital records of 20 children aged 5 to 13 who were admitted for attempting suicide between 1975 and 1978. Kosky's study indicates that there was significant dysfunctional family interaction among these children: "physical abuse by a parent (60%), physical violence between the parents (65%), an ongoing illness of either a parent or a sibling (65%), a loss of a significant other (80% — with 60% of these occurring within 12 months preceding an attempt), or marital disintegration (50%)".

Smith and Crawford (1986) speculate that some adolescent suicidal behavior is less a wish to die than a desperate attempt to bring some order and control into a chaotic and destructive family setting. They see teens who react to family strife with controlling and threatening actions as exhibiting coping and communications skills consistent with a dysfunctional family situation.

Other Contributing Factors Associated With Suicidal Behavior

The foregoing research discussion suggests that children and adolescent suicidal attempters perceive greater stresses in life than non-suicidal youngsters. Hawton (1986) writes that it is important to differentiate between the ongoing problems faced by adolescents which lead to a suicidal act and the precipitant which triggers the act itself. He suggests that researchers must first consider certain methodological issues when determining the contributory factors in adolescent suicidal behavior.

Methodological issues. One of these is the method used to obtain the information. Hawton suggests that researchers must ask whether the method used is retrospective: taken from past hospital records which may be distorted and incomplete; or prospective: taken from the attempters themselves which may need corroboration from other sources. Another methodological issue concerns accurate classification. Hawton sees difficulties in the accurate classification of the ongoing problems encountered by suicidal youth. When comparing results

from various studies, differences between operational definitions of ongoing problems and precipitants need to be considered. As well there may be differences between what the attempters see as problems and those identified by health professionals and researchers. Hawton's example, taken from his own research, is related to the use of alcohol. He found alcohol was identified as a problem more by clinicians than by attempters themselves. But as we shall see, substance abuse is a common factor in early adolescent suicidal behavior. Finally, determining motivation can be a source of major methodological difficulty. "The association of particular types of problems with suicide attempts does not necessarily imply a causal connection" (Hawton, 1986, p. 75). Hawton believes that differences occur when researchers try to establish a causal link between problems or precipitants and the actual attempts. He sees these causal links as **motivation**. He refers to motivation as the intention behind the behavior, which is difficult to determine and hence to study because of its subjective nature. The issue of motivation will be discussed later in the chapter.

Accuracy in collecting and reporting research on early adolescent suicidal behavior appears marginal at best. Therefore, methodological suggestions that help to clarify or eliminate these problems are important to the validity and usefulness of future research.

Ongoing Problems. The types of ongoing problems encountered by suicidal children and adolescents, which forms the basis for the second methodological issue addressed by Hawton, deserves particular attention. Hawton and his colleagues developed a check list of current problems for their Oxford study using 50 adolescent self-poisoners (Hawton, et al., 1982). This checklist was used twice with each patient, once by a research interviewer and once by a clinical interviewer, in an effort to determine ongoing and continuous problems encountered by the adolescent. A problem was checked off only if it was "causing distress" or difficulty for the adolescent "whether it appeared to be directly connected to the overdose or not" (Hawton, 1986).

The following list shows Hawton's findings of the problems checked off by suicidal adolescents; in order from most to least cited:

1. Relationships with parents
2. School difficulties
3. Boy/girlfriend problems
4. Social isolation
5. Sibling(s)
6. Physical health
7. Psychiatric symptoms
8. Sexual
9. Relationship with peers
10. Alcohol
11. Physical illness of family member
12. Financial
13. Psychiatric disorder of family member
14. Problems with the law
15. Drugs

Adapted from Hawton, K. (1986). *Suicide and attempted suicide among children and adolescents*. London: Sage Publications; p. 76.

According to Hawton (1986), "good agreement" was found between the clinical and research interviewers. As well, the frequency ranking of the problems from most to least was similar to findings of other studies done in the United Kingdom and in the United States (Hawton, 1986). A brief discussion of some of these continuing problems will follow.

1. Relationships with Parents. Compared with "normal" adolescents, Hawton's (1986) research found that 76% of the child and adolescent suicide attempters more often had "disturbed" relationships with their parents. Hawton's findings are similar to those discussed previously which suggest that disturbed family relationships contribute to adolescent suicide behavior. He also found that the relationship with the parent of the opposite sex was the most difficult. The adolescents in his study, 90% of whom were girls, felt unable to talk to their fathers about personal problems. Actual conflict as well as lack of parental warmth and caring were also factors in difficult parental relationships. Hawton believes that parental attitude may not always be the entire cause of the conflict with the child or teen because often the child's or the adolescent's own personality difficulties contribute to interrelational problems.

However, parenting styles can have a positive or negative impact on adolescent behavior. Current research suggests, within certain limitations of definition of types and causes, a correlation between certain parenting styles and adolescent behavior (Santrock, 1987; Nielsen, 1991). For example, using Baumrind's (1990) categorizations of parenting styles it was found that; authoritarian parents are too restrictive of emerging adolescent autonomy which is linked to lack of self confidence, ineffectual social interaction and aggressive adolescent behavior, permissive parents, either highly involved or very uninvolved, place too few restrictions on their adolescents which encourages lack of self control and impulsiveness, and finally, authoritative parents encourage adolescents to be independent within flexible, mutually agreed upon boundaries often associated with social competence, self-reliance, and responsibility.

A link can be drawn between adolescent suicidal behavior and the consequences of authoritarian and permissive parenting styles. In the authoritarian style, the adolescent might see suicide as the only escape from an extreme prison-like existence and in the permissive style both lack of self control and impulsiveness have strong connections with suicidal behavior.

2. School Difficulties. Fifty-eight percent of the Oxford adolescent self-poisoners had school problems (Hawton, 1986). Hawton found that these problems consisted of poor academic achievement, a desire to drop out of school, and poor relationships with teachers and peers. Although many studies show that suicidal adolescents perform poorly in school, there is evidence that this may not be a result of low intelligence (Shaffer, 1974; Kosky, 1982; Joffe & Offord, 1983). Hawton (1986) states that in his study school problems were rarely the direct cause of the suicide attempt. He believes that school problems are one part of pervasive interpersonal difficulties which lead to the adolescent's low self esteem, self-doubt and deep personal pain. Although other researchers feel that school problems [academic failure or being dropped from a school team] are precipitating factors in suicidal behavior, they agree that low self esteem and

feelings of hopelessness are more potent influences (Stillion, 1989; Fremouw et al., 1990; MacLean, 1990; Acosta-Rua, 1991; Farberow, 1991).

3. Problems with Boyfriends or Girlfriends. The ending of a relationship with a significant other may precipitate adolescent suicide behavior (Garfinkel et al., 1982; Hawton, 1986; Fremouw et al., 1990; Pfeffer, 1990). Fremouw et al. (1990) suggests that such breakups are extremely painful and the suicide attempt is used to end the pain or to manipulate the return of the significant other. Ninety percent of Hawton's study of self-poisoners were girls and problems with boy/girlfriend were found to be a precipitating factor in 52% of their suicide attempts. He states that the high incidence rate is due to the fact that girls who make suicide attempts more often have relationship problems with members of the opposite sex than boys who attempt suicide. According to Hawton, girls' relationship problems have more devastating consequences because girls from non-supportive families are often overly dependent on their boyfriends for emotional support.

In addition to the three problem areas Hawton mentioned a review of the literature shows two more important areas.

4. Misperceptions at School. Pfeffer (1990) believes that an important factor in precipitating suicidal behavior arising from interpersonal problems is humiliation — "feelings of disgrace and public disparagement;" "a loss of a basic sense of one's worth." In early adolescence, self-awareness, in the form of self-consciousness, becomes particularly important. Erikson states that early adolescents, in trying to develop a clear, unified sense of self, are preoccupied with how they appear to others. This extreme preoccupation with the self, one's own reactions and others to this new emerging self, means that any slight, loss of a significant other, or embarrassing moment can assume mammoth significance. An event that might seem trivial to an adult can be devastating to an early adolescent. It is important to remember that for an adult, life's humiliations are seen from the perspective of lengthy life experience which helps to reduce their

pain. However, for an adolescent who is suffering from chronic stress in their family and/or school life, the loss of academic or sports team status may become the "final straw" that leads to suicidal behavior.

5. Egocentricity. Santrock (1987) believes that the narcissistic, self-orientation of the early adolescent leads to "self-serving, highly idealized, tenuous, and superficial" relationships. Superficiality is apparently common in the dating relationships of this age group. This superficiality is perhaps the result of the early adolescent's preoccupation with the self — the "imaginary audience." Consequently, the young girl, dependent upon another egocentric early adolescent for her emotional support, will be especially vulnerable to feelings of rejection when the relationship ends. Because not only is she losing desperately needed emotional support, her egocentric "self" has also been rejected. Feelings of rejection and loss, as we have seen before, often contribute to suicidal behavior.

Differences in age and developmental status. Stillion et al. (1989) note that within the problems and precipitating factors discussed in the previous section of this review there are important differences related to age and developmental stage. They see these differences occurring within four interrelated categories of risk factors which contribute to suicidal behavior in childhood (ages 5 to 14 years). These differences can most accurately be described under four subheadings: biological, psychological, cognitive and environmental.

1. Biological Risk Factors. Stillion and his colleagues (1989) suggest that two risk factors occurring in childhood (ages 5 to 14 years), impulsivity and hyperactivity, may have a biological basis. Their review of the research found that childhood suicide generally results from a long history of abuse or neglect. This same selection of research also indicates that childhood suicide seems to be more impulsive than in any other age group. Stillion et al. also contend that hyperactivity plays a role in childhood suicide. They believe that hyperactive children, because they do not always "stop to think" before they act and behave impulsively, may be less protected

from suicide. From the writer's own perspective, impulsivity appears to be just one component of hyperactivity and it is difficult to separate them in a meaningful way.

2. Psychological Risk Factors. Stillion et al. in continuing their review of risk factors for childhood suicide, suggest two in the psychological category. The first is a "sense of inferiority," a theoretical construct conceived by Alfred Adler and later elaborated upon by Erikson. This "sense of inferiority" can be the result of continual experiences of failure at school and in relations with peers. Many children who feel inferior develop low self esteem. They may behave in ways that reinforce the negative feedback they receive from others. These negative behaviors reconfirm their negative self-image which can lead to depression, isolation, and possible suicidal behavior (Stillion et al., 1989). The second psychological factor is referred to by Stillion and others as the "expendable child syndrome:"

> The expendable child experiences loss of love in the most extreme form. Parents of these children communicate very low regard for, hostility toward, and even hatred of them on a daily basis. (Stillion et al., 1989, p. 249.)

These children are continually told, in effect, "I wish you were dead," by their parents. As a result the child believes that they are expendable and that their deaths would be of no heartfelt consequence to anyone.

3. Cognitive Risk Factors and Concept of Death. Stillion et al. examines another difference in risk factors for childhood suicide related to cognitive development. Considerable attention has been given to a child's concept of death and Stillion et al., feel that a child's immature view of death is associated with childhood suicide. The age at which children develop a concept of death, especially in terms of death being both universal and irreversible, is important to the understanding of suicidal behavior between the ages of 5 to 14 years. McLean (1990) discusses German research on this topic that was published as early as 1912, but was not translated until 1965. The research was conducted by Dr. Hermine Von Hug-Hellmuth and used nonpsychoanalytic observations of children. Analysing these observations, Von Hug-Hellmuth

(1912) identified when these children developed death wishes, the displacement of death wishes, and the development of a view of death that changes from a reversible to an irreversible state (McLean, 1990).

Pfeffer (1986) discusses one of the first empirical studies of children's views of death conducted by Nagy (1948). Nagy questioned 378 children, ages 3 to 10 years old, in Budapest concerning their views on the following: What is death? Why do people die? How can you recognize death? Her study grouped children by age. A summary of Nagy's research found that children younger than 5 years viewed death as reversible, children between the ages of 5 and 9 personified death as a separate identity, and those older than 9 years recognized death as a biological process; that disintegration of the body occurs after death. Nagy's work is important because it demonstrates the developmental nature of children's conceptualizations of death, and that these conceptualizations change as they grow older, moving from ideas of reversibility to irreversibility (Pfeffer, 1986).

Nagy's ideas coincide with Piaget's (1960) structural theory of cognitive development. Piaget stated that children age 2 to 7 (preoperational stage of development) see death as a reversible and temporary condition, although this may be distorted by aspects of egocentricity, concrete thinking, and magical thinking. Between the ages of 7 and 11, Piaget's "concrete operational stage," children begin to apply logic to solving problems about concrete entities. Death is perceived as final but not as a universal or personal phenomenon. At age 12, with the acquisition of the abstract operational stage of cognitive development, the child thinks logically about possibilities. At this stage the child is able to have thoughts that are abstract, logical, hypothetical, and objective. Death, at this stage, is seen as a personal and biologically irreversible event (Piaget, 1960). The research of White, Elsom and Prawat (1978) also draws a correlation between general cognitive development and the acceptance of the universality of death, which brings the realization that death happens to oneself as well as to everyone else.

However, research conducted by McIntire et al. (1972) suggests that the concept of death as reversible can persist, in some form, into adulthood. In their study of 600 children and adolescents, McIntire and her colleagues (1972) found that 15 to 25% of the 13- to 16-year-old age group believed that death is not terminal. In earlier research McIntire and Angle (1970, p. 698) state that: "The adolescent has a sense of personal immortality no matter what his stated concepts are, because his own death is so remote in time; he enjoys the invincibility of youth." In a later chapter of this thesis the idea of "personal immortality" or "invincibility of youth" will be correlated with David Elkind's concept of the personal fable.

Pfeffer (1986) writes that normal children are able to discuss their fears and fantasies about death. In contrast, suicidal children are intensely engrossed with death and "...believe that death is a temporary, pleasant state that will relieve all tensions" (Pfeffer, 1986, p. 114). Contrasting the information obtained from child psychiatric patients and normal school children, Pfeffer and her associates (1984) demonstrated that suicidal children are preoccupied by fears of their own deaths, family members' deaths and have dreams and fantasies about people dying and how they die. Many of these children believe death to be reversible and pleasant.

Orbach, Glaubman and Gross (1981), in an attempt to understand the attitudes of suicidal children towards death, used stories and questions to help children distinguish between four attitudes: attraction to life, repulsion by life, attraction to death, repulsion by death. In contrast to most children, suicidal children often had a high level of repulsion by life and attraction to death and a lower attraction to life and repulsion by death score. According to this study, non-suicidal, contented, happy children typically have positive attitudes to life and negative views of death; suicidal children should show a reverse profile. But the results of their study show that the smallest difference between the suicidal and non-suicidal groups was on the measure of attraction to life (Orbach et al., 1981). The results indicate that the suicidal children had considerable conflict in their attitudes towards life; some were still attracted to life while living

under severe stress. Orbach (1984) believes that this ambivalent attitude, i.e., being both attracted to and repulsed by life, in many suicidal children and adolescents has important implications for prevention and intervention programs.

Other researchers also claim that understanding the suicidal child's concepts of death would facilitate the assessment, treatment and prevention processes employed for these young people (Hawton, 1986; Pfeffer, 1986). This might be particularly true in developing cognitive approaches to educational strategies used in prevention programs.

4. Environmental Risk Factors. Because the environmental category seems to include the same risk factors for children as those encountered by adolescents, typically problems related to family and school, it will not be discussed further here.

Orbach (1984) states justifiably that the weakness of early research is that it provides descriptive information about suicide potential but no elaboration of the causal processes for suicidal behavior. In the next section information relating to the following causal processes will be presented: psychological factors, substance abuse, and cognitive factors not related to the development of a concept of death.

Predisposing Variables For Suicidal Behavior

Psychological Factors/Emotional States (Psychiatric Symptoms)

The youngster's emotional state, as a predisposing variable, is strongly related to childhood and adolescent suicidal behavior. Spirito and others (1989) exhaustive review of the literature identified three primary emotional states associated with suicide attempts in early adolescents: depression, hopelessness, and anger. Additional research indicates that substance abuse and cognitive factors are also associated with suicidal behavior in early adolescence. Each of these predisposing factors, as it relates to youngsters aged 10 to 15 years, will be discussed in turn.

1. Depression. The association between depression and adolescent suicidal behavior is well documented (Shaffer, 1974; Toolan, 1975; Pfeffer et al., 1979). In the past this association was met with scepticism because some psychologists believed that early adolescents were developmentally incapable of experiencing depression (Pfeffer, 1990). However, current literature which sets clear criteria for diagnosing and assessing depression in youngsters aged 10 to 15 has put this belief to rest (Tishler, 1982; Berman & Carroll, 1984; Pfeffer, 1986). However, the role of depression does not provide a comprehensive explanation for suicide because suicidal behavior can occur in youngsters in the absence of depression (Hawton, 1986). MacLean (1990) found that only 50-75% of adolescents exhibited features of depression in the months prior to the suicidal behavior. Other researchers contend that depression is a strong contributory factor, but does not always bear a causal relationship to suicidal behavior (Fremouw et al., 1990; Joffe & Offord, 1990; Pfeffer, 1990; Acosta-Rua, 1991).

The fact that depression is not seen in all suicidal behavior may be the result of the varied behavioral manifestations of depression in children and adolescents. In children, depression may be masked by behavioral disturbances, such as sleeplessness, acting out, hyperactive behavior, or listlessness (Fremouw et al., 1990). Other indications of depression may be school phobia, learning difficulties, decrease or increase in appetite, and loss of interest in friends and poor socialization (Pfeffer, 1986). Orbach (1984) found that feelings of hopelessness, poor impulse control, and cognitive rigidity were major characteristics of suicidal children, but that in only some cases were these children clinically diagnosed as depressed.

According to Husain and Vandiver (1984), depression in adolescence is often masked through boredom, restlessness, or delinquent behavior. Capuzzi (1988) found that some adolescents use drugs, alcohol and sex to shield themselves from the pain of depression. Other researchers include the following factors as being associated with depression in suicidal adolescents: insomnia, negative self-image, conduct disorders, impulsivity, problems in judgment;

deficient problem solving skills or cognitive rigidity, low level of frustration tolerance; anger, rage, or hostility; withdrawal from peers or family, loneliness, feelings of emptiness in life, and lack of interest in normally enjoyable activities (McIntire & Angle, 1980; Berman, 1986; Capuzzi & Golden, 1988; Fremouw et al., 1990; Pardes & Blumenthal, 1990; Pfeffer, 1990).

Recognition of the above manifestations of depression in children and adolescents is crucial to the accurate assessment of suicidal risk. As Fremouw (1990) points out: "while not all depressed individuals are suicidal, the great majority of suicidal people experience depression." Therefore parents, educators, and clinicians must be aware and sensitive to these indicators of depression that might be a direct "cry for help."

2. Hopelessness. Hawton (1986) and others suggest that when hopelessness is added to the lives of depressed children and adolescents it becomes a major contributory factor in suicidal behavior (McIntire & Angle, 1980; Orbach, 1984; Spirito et al., 1989). Stillion and his colleagues (1989) found several studies suggesting that feelings of hopelessness may affect the degree of lethal intent among suicide attempters. Spirito and his associates (1989) report a stronger correlation between hopelessness and suicidal ideation and behavior in preadolescent children than between depression and suicidal behavior. These results are similar to those found for adults (Pfeffer, 1990). Pfeffer and her colleagues (1979) assessed 58 psychiatrically hospitalized latency-age children and found that along with depression and worthlessness, *feelings of hopelessness* significantly differentiated suicidal from non-suicidal children. Spirito et al. (1989), in discussing research he conducted with others in 1988 indicates that hospitalized adolescent suicide attempters showed significantly more feelings of hopelessness than non-suicidal and normal control groups.

Two additional precipitating factors unique to females are linked to hopelessness: the discovery of pregnancy, and a recent sexual assault (Smith & Crawford, 1986). A young girl coping with feelings of shame, desperation and concern about her pregnancy or sexual assault

experience may fear her parent's response and thus perceive suicide as a solution to her predicament.

Although depression and hopelessness are similar constructs, recent research indicates that hopelessness is more consistently correlated with suicidal behavior across all ages. The child's or adolescent's view of life, whether positive or negative, is an important indicator of the amount of despair felt. Consequently, in assessing a youngster's risk for suicide, clinicians, teachers, and parents need to be aware of the extent to which a youngster's level of despair or negative view of the future reflects a feeling of hopelessness.

3. Anger. Spirito and others (1989) investigated the effect of anger and aggression on suicidal behavior in children and adolescents. They found that substantial numbers of adolescent suicide attempters displayed other aggressive behaviors and often intense anger prior to the attempt.

Although anger and irritability are often symptoms of depression, Pfeffer and her colleagues (1983) found that many children who attempt suicide display assaultive/aggressive behavior with signs of depression. Much of the literature indicates that adolescents who attempt suicide also exhibit antisocial behavior (Pfeffer, 1986; Turgay, 1989; Pardes & Blumenthal, 1990). Youngsters who suffer from what is now referred to as "conduct disorders" often display angry and aggressive behavior.

4. Substance abuse. The use of drugs, particularly alcohol, has also been associated with adolescent suicidal behavior (Garfinkel & Golombek, 1983; Seiden, 1984; Peck et al., 1985; Stillion et al., 1989; Pfeffer, 1990). Seiden (1984) suggests that an increase in drug use in the 1960s and 1970s paralleled a rise in adolescent violent death. He states that there are few known deaths due to over consumption of marijuana, commonly associated with young people. However, Seiden (1984) as well as other researchers believe that the drug of choice for this early adolescent age group is alcohol. Many depressed adolescents use alcohol to alleviate the stress and despair in their lives. Shaffer and his colleagues (1988) found that adolescent alcohol abuse

(rather than dependence, which is more common among adults) plays a significant role in youthful suicides. It is common knowledge that alcohol weakens emotional controls and loosens inhibitions. Consequently, a depressed adolescent filled with hopelessness and low self esteem, topped up with the inhibitory relaxing effects of alcohol, is at an increased risk for an impulsive suicide attempt. Impulsivity as a risk factor appears more in suicidal children but plays an important role in early adolescent suicidal behavior as will be noted in the following section. Alcohol use, because it lessens inhibition when linked with impulsivity, increases the risk of suicidal behavior in adolescents.

5. Cognitive factors. The level of cognitive development in early adolescents may contribute to suicidal behavior. Cognitive structures peculiar to the early adolescent may also influence the emotional and behavioral characteristics of this age group. Early adolescence is viewed as a period of transition in cognitive development. According to Piaget, early adolescents move from specific, rigid thinking (concrete operational thought) to abstract, hypothetical thinking (formal operational thought). However, this transition occurs gradually and the adolescent may continue to think at both levels. This has implications for the causes of suicidal behavior in this age group. This premise will be developed more fully in chapter three of this thesis, but for present purposes, it is sufficient to state that during this period of development the early adolescent may think concretely and abstractly simultaneously. How might this trait affect suicidal behavior? The ability to think hypothetically allows the adolescent to reappraise his old beliefs and to see the world in a new and perhaps unrealistic light. But there are few reality checks available to early adolescents, due to the limitations of the concrete operational stage on their thinking ability. As a result, many early adolescents see their lives and problems from only one perspective: their own. This can have fatal consequences if suicide is perceived as the only solution to life stresses.

Spirito and others (1989) suggests three cognitive variables relevant to suicidal behavior in adolescence: (a) problem-solving deficits, (b) impulsive tendencies, and (c) cognitive distortions.

(a) Problem-solving deficits: Spirito et al. (1989) cite several studies whose results indicate that suicide attempters, suicidal patients (children and adolescents), and early adolescents exhibiting suicidal ideation or behavior all displayed less adequate problem-solving abilities than normal youngsters. Their research review found that a lack of flexibility and rigidity in problem-solving abilities may be "state dependent and not a stable personality trait." This might lend credence to the idea that in early adolescence cognitive development is in a state of transition. A comment by Berman & Carroll (1984) explains why some adolescent suicidal behavior is the result of limited decision making skills:

> Temporarily blinded by impulse and/or intense affect, motivated by stress and conflict felt to be inescapable or unresolvable, and unconstrained because of immaturity or ineffective ego controls, the adolescent on the brink of self-destruction is not a rational decision-maker. (p.53)

(b) Impulsive tendencies: Pfeffer and her colleagues (1986), after comparing pre-adolescent patients and non-patients, found that poor impulse control was a factor in suicidal behavior. In their review of the research describing impulsivity as a risk factor for suicide, Spirito et al. (1989) found impulsivity to be a personality trait of some suicide attempters. They also found, however, that not all suicide attempters were impulsive. Instead, they feel that impulsivity could be used to determine high risk subgroups. According to Acosta-Rua (1991), two-thirds of adolescent suicidal attempts are impulsive and even most completed suicides had only brief prior planning. Spirito and others (1989) cites research that impulsivity occurs more frequently in male suicide attempters than female suicide attempters. They also found that impulsive suicide attempters were less depressed and hopeless than those who had formulated a plan. Both Spirito et al. (1989) and Pfeffer (1990) believe that further research is needed to clarify whether non-

planners (the impulsive) are more or less at risk for a fatal suicidal act than careful planners. Pfeffer (1990) suggests that "planning" appears to be the key to the lethality of intent in suicidal behavior. Some researchers believe that "careful planning" is closely related to a high degree of suicidal intent and therefore stronger lethality (Acosta-Rua, 1991). As there are numerous references to the association between impulsivity and suicidal behavior in early adolescence, it is surprising that this issue has not been researched more extensively.

(c) Cognitive distortions: Much of the research into the cognitive abilities of suicidal youngsters suggests that cognitive functions related to problem solving strategies become distorted, impaired, rigid, and dichotomous (Berman & Carroll, 1984; Seiden, 1984; Farberow, 1985; Spirito et al., 1989; Stillion et al., 1989). Stillion et al. (1989) assert that three specific cognitive distortions contribute to suicidal thoughts: a tendency to overgeneralize, selective abstraction, and inexact labelling. These three are of particular importance to the study of early adolescent suicidal behavior for, as we have seen previously, the cognitive development of early adolescents is in a state of transition and change. Suicidal early adolescents may *overparticularize* their stressful situation as unique to them, to the extent that they perceive all future similar situations will produce the same negative outcome. This may occur because early adolescents do not have sufficient life experience to enable them to see that others have survived similar problems and that different outcomes can occur. *Selective abstraction* occurs when a suicidal person dwells on negative experiences, completely ignoring the positive ones, and engages in mental negative self-talk, thereby ensuring continued low self-concept. The third element, *inexact labelling*, is quite similar to selective abstraction for it too perpetuates a negative self-concept. For the purpose of this thesis, the first of these cognitive distortions, the tendency to overgeneralize, is the most pertinent in the study of early adolescent suicidal behavior. Because the early adolescent's cognitive abilities are undergoing a developmental transition, we contend that overgeneralizing the negative outcome of one situation to future situations is really a narrowing of options. It is

this narrowing of options or rigid thinking in the minds of early adolescents that may cause a stressful experience to be seen as solvable only through suicide.

The other two cognitive distortions, selective abstraction and inexact labelling, cause the youngster to focus only on the negative features of an event. Spirito and his colleagues (1989) use the attributional theory of depression to explain this kind of thinking. This theory argues that depression is a result of attributing negative situations to internal, stable causes such as personality traits, while positive events are attributed to external, unstable causes such as luck (Spirito et al., 1989). In reviewing the research on attributional theory, Spirito and his colleagues found that adolescent suicidal attempters displayed more "attributional errors" of a negative type than the non-suicidal psychiatric controls.

To summarize, we have discussed three cognitive factors: problem-solving deficits, impulsive tendencies, and cognitive distortions, all of which relate to early adolescent suicidal behavior. An awareness that *impulsiveness* is a major component in early adolescent suicide attempts could enable clinicians, teachers, and parents to more actively intervene with this high risk group. It is important for all who come in contact with early adolescents, whether suicidal or not, to be aware that the cognitive style of 10 to 15 year olds may exhibit lack of flexibility, overly negative perception of events, and a tendency to feel totally responsible for certain negative events. An understanding of the transitional nature of the early adolescent's cognitive development could encourage more extensive teaching of problem-solving strategies in elementary and junior high schools.

The foregoing section has presented causes and background characteristics linked to suicidal behavior in children and adolescents. The identification of the risk factors associated with attempted or completed suicide is important for intervention and prevention programs for these youngsters. Turgay's (1989b) review of the research identifies fifteen high risk factors commonly associated with attempted suicide in adolescents:

Fifteen high risk factors associated with attempted suicide:

1. Age: adolescence and early adulthood
2. Sex: females
3. Psychiatric disorder: depression, conduct disorder
4. Family breakdown
5. Prior suicide attempt
6. Family history of suicidal behavior
7. Drug and/or alcohol abuse
8. Conflict with parents and/or friends
9. Recent object loss
10. School failure
11. Family dysfunction
12. Physical illness
13. Physically and/or sexually abused
14. Poor impulse control and aggressive behavior
15. Hopelessness

Turgay also identified seven risk factors commonly associated with completed suicide in children and adolescents:

1. Age: older
2. Sex: male
3. Psychiatric disorder: depression, conduct disorder
4. Prior suicidal attempt
6. Family history of successful suicide
7. Drug and/or alcohol abuse

Knowledge of these risk factors can help clinicians and teachers to target "at risk," vulnerable children and adolescents. The more risk factors that apply to a child's or adolescent's life, the greater the probability that suicidal behavior will occur. Early detection and alleviation of even some of these risk factors from a youngster's life situation can mean some youngsters will choose life rather than death by suicide.

Motivation or Degree of Intent

We will now turn our attention to the importance of determining motivation; or the degree of intent to take one's own life, in early adolescent suicidal behavior. To fully understand

suicidal behavior in children and young people we must look at three areas: the problems and precipitants that lead to it; the child's and early adolescent's concept of death; and most importantly, the motivation attached to the behavior. Problems and precipitants of suicidal behavior and the development of a youngster's concept of death have both been addressed in previous sections of this chapter. However, a brief statement about how the concept of death affects motivation will be included here. Shaffer (1974) believes that as the child and adolescent grow towards a mature concept of death the motivations for suicide seem to change from the impulsive act of the child to a more "internalized, conflict resolving" attempt of the adolescent. We have also seen that the child's and adolescent's attitudes toward death plays a role in motivation. Pfeffer et al. (1979) found that suicidal children are more engrossed with thoughts of death, their own and others, than other children. It is important to remember that Pfeffer and her colleagues' study revealed that some suicidal children and early adolescents view death as both a temporary and a "pleasant" phenomenon. This idea that death is temporary and pleasant is vital to the premise of this thesis. The transitional nature of cognitive development in early adolescents combined with a belief that death is pleasant and temporary may be an important factor that pushes early adolescents toward suicidal behavior.

Motivation; the intention, need or desire that causes the suicidal behavior, is difficult to identify. This difficulty occurs because some youngsters will not admit to intent and although there are common precipitants; each youngster's circumstances have unique characteristics (Hawton, 1986). Early adolescents and teenagers commonly deny self-destructive intent; even after a suicidal attempt has been made or a suicidal threat has been expressed (Pfeffer, 1990).

Hawton (1986) found in his research on adolescent self-poisoners that sometimes the intention may be unconscious; but if conscious, is often denied because the young person fears punishment and disapproval from peers, parents and clinicians. Because it is difficult to elicit information concerning motivational aspects of suicidal behavior, little research has been

conducted in this area. This lack of knowledge about motivation may prove detrimental to providing effective prevention programs (Hawton, 1986). Since individual motivation or intentionality in suicidal attempts is rarely investigated, different types of attempters are lumped together — those who want to die are combined, for research purposes, with those who do not want to die. Some researchers believe that few attempters want to die. It would seem obvious that a lack of a death wish would have different motivational characteristics than a strong death wish.

By looking at the varied motivational characteristics of adolescent attempters, especially those who do not wish to die, we may develop a better understanding of suicidal behavior within this age group. Hawton (1986) explored three areas affected by motivation: (1) how suicide attempts are explained, both by the perpetrator and by others; (2) the circumstances surrounding the event; and (3) whether premeditation was involved. The 50 adolescent self-poisoners (25 were less than 16 years; 25were between 16-18 years) were asked to choose states of mind from a list of possibilities to help explain their feelings at the time of the suicidal attempt (Hawton, 1986).

Table 2.2
50 Adolescent Self-Poisoners Reported Having These Feelings at the Time of Their Overdose

	Anger	Loneliness	Worried	Failure	Sorry/Ashamed
Under 16 years	60%	52%	24%	16%	8%
16 to 18 years	48%	56%	56%	40%	20%
Both groups	54%	54%	40%	28%	14%

Adapted from: Hawton, K. (1986). Suicide and Attempted Suicide Among Children and Adolescents, p. 91. Beverly Hills & Sage Publications, Inc.

Hawton's (1986) interpretation reveals that being angry with someone, feeling lonely or unwanted, and worries about the future were the major feelings to precede suicide attempts for these adolescents. This would add confirmation to the earlier discussion of the research that a sense of hopelessness is a major factor in the lives of depressed suicidal adolescents.

The adolescent attempter and the interviewing clinician were then asked to choose from a series of eight statements those which best described his or her reasons for the suicide attempt (Hawton, 1986). The following is a rank order of reasons selected by 50 adolescents and their clinicians to explain the adolescent's overdose:

Table 2.3
Rank Order of Reasons to Explain Overdose

Reasons	Adolescents Selection	Clinicians Selection
1. Get relief from a terrible state of mind	1. 42%	4. 40%
2. Escape for a while from an impossible situation	2. 42%	6. 36%
3. Make people understand how desperate you were feeling	3. 42%	1. 60%
4. Make people sorry for the way they have treated you, frighten or get back at someone	4. 32%	2.5 56%
5. Try to influence some particular person to get them to change their mind	5. 26%	2.5 56%
6. Show how much you loved someone	6. 26%	8. 16%
7. Find out whether someone really loved you or not	7. 24%	7. 18%
8. Seek help from someone	8. 18%	5. 38%

Adapted from: Hawton, K. (1986). Suicide and Attempted Suicide Among Children and Adolescents, p. 93. Beverly Hills & Sage Publications, Inc.

Reasons *1*, *2*, and *3* were chosen most often by the adolescents, which demonstrates again that some suicidal adolescents are under extreme stress prior to the attempt. I believe that these findings support those which link adolescent suicide attempters and disturbed family environments. Responses to reasons *4* and *5* display a major difference between the adolescent and the clinician. The clinicians more frequently chose the punitive and manipulative reason for the attempt than did the adolescent. I agree with Hawton's explanation for this which is as

follows: He found that 54% of the adolescents, when asked about suicidal intent at the time of the attempt, had chosen "wanting to die" from three choices. The interviewing clinicians had described only 14% of these same adolescents as "wanting to die." Hawton interprets the discrepancy by suggesting that the adolescent chooses "wanting to die" because it provides the only credible or legitimate reason for his or her attempt. Hawton believes and I agree that these adolescents did not choose punitive or manipulative explanations because these are "an unconscious expression of externally directed hostility that is unrecognized by the patient." (Hawton, 1986, p. 94.) Therefore, choosing "wanting to die" seems a simple and readily acceptable response for the adolescent to give. Hawton (1986, p. 94) continues:

> ...adolescent self-poisoners may feel so distressed at the time of taking the overdose that they feel *as if* they want to die, but death is not the (unconsciously) intended outcome of the act. 'Wanting to die' may be the individual's way of legitimizing the suicide attempt in his of her own mind.

Perhaps these adolescents feel "as if" they want to die because they do not see death as final but as a reversible and pleasant state. McIntire and her colleagues (1972) studied 600 13- to 16-year olds and found that 25% of them believed that death is not final. Pfeffer (1981) found this belief; that death is not final, to be particularly true for adolescents with suicidal ideas. Smith and Crawford (1986) believe that adolescent suicide behavior is not a "wish to die." They see these "impulsive, self-destructive acts" as a desperate attempt by the adolescent to gain control over and bring stability to a chaotic life situation. These manipulative and punitive reactions are seen by Smith and Crawford (1986) as acceptable coping and communication styles within the adolescent's dysfunctional family. Berman (1986) writes that often the adolescent's motive in a suicide attempt is the desire to "alter the behavior of others" or to escape an intolerable, prison like existence. According to Turgay (1989) suicidal behavior in children carries a powerful wish for change. He feels that this desire for change is stronger than the desire to die; which is either "minimal, secondary, or does not exist at all." (Turgay, 1989, p.13). Pfeffer (1981) sees the suicide attempt in children as a "cry for help" or a "plea" to bring change to a stressful home

situation. Peck, Farberow and Litman (1985) believe that the purpose of a youngster's suicide attempt is to produce change in other's feelings and behaviors. Peck and others (1985) see the adolescents' suicidal behavior as manipulative and power seeking. Personally I think many early adolescent attempts result from a tremendous need to escape from intolerable stress. This, coupled with the belief that death is reversible and pleasant, often ends in tragedy for the adolescent.

The fact that much adolescent suicidal behavior ends with an attempt rather than a completed suicide may be determined by the circumstances surrounding the act. Hawton (1986), in examining the circumstances involved in a suicidal act, found certain clues useful in revealing suicidal intention, for example: premeditation, leaving a note, timing of the attempt — whether alone or when family/friends may be around, and whether a friend or relation is notified immediately after the overdose. In his study, Hawton found that the circumstances surrounding the act were rarely associated with a serious wish to die. He found that the Oxford adolescent self-poisoners ensured that they would be discovered. I concur with his belief that although many adolescent suicidal acts ensure discovery the easy access to guns in North America increases the potential for a completed suicide. Hawton (1986) states that researchers and clinicians should pay closer attention to the nature of the act rather than to the circumstances surrounding it. As far as premeditation is concerned, Hawton (1986) suggests that the longer an adolescent contemplates a particular self-destructive act the greater the potential for death. Clinicians, teachers, and parents must always be aware that in any suicidal attempt there is a risk of disaster and death.

The following quote from an article by Berman and Carroll succinctly summarizes the motivation aspects of early adolescent behavior:

> Suicidal behavior is complex, multidetermined, and deeply rooted in the self of the suicidal individual. The motives for suicide attempts of adolescents appear largely directed toward effecting change in or escape from an interpersonal system. Families are perceived as in conflict, stressful, and nonnurturing. The suicidal adolescent develops cognitions and related affects of helplessness,

> hopelessness, worthlessness, and rage. Without alternative and effective coping models (perceived or at hand), the suicide attempt may be construed as a last-ditch effort to alter in a dramatic way an intolerable situation. (Berman & Carroll, 1984, p. 60)

To conclude this section on causal factors involved in adolescent suicidal behavior I would like to introduce seven important clues indicating the possibility of suicide. This information on Table 2.3, was developed for a youth suicide prevention program in Edmonton, Alberta.

Table 2.4

Clues indicating the possibility of suicide

1. Statements such as:
   - My family would be better off without me.
   - I'm going to end it all.
   - I won't be around much longer.
   - I don't want to be a burden.
   - I can't stand it any longer.

2. Physical symptoms such as:
   - Loss of appetite.
   - Sleep disturbances.
   - Loss of interest in appearance.
   - Self-mutilation (could be accidents).
   - Lack of energy.
   - Loss of sexual desire.
   - Hyperactivity.

3. Emotional symptoms:
   - Withdrawal.
   - Anxiety.
   - Unreal expectations about performance.
   - Despondency.
   - Mood swings.
   - Feelings of helplessness, powerlessness.
   - Feelings of loss (anticipated, real or imagined).
   - Feelings of being isolated/alone.

4. Behavioral symptoms:
   - Frequent, irrational changes in behavior.
   - Concentration difficulties.
   - Impulsiveness/recklessness.
   - Abuse of alcohol and/or drugs.

5. Giving away favorite possessions.

6. Making a will; putting business affairs in order.

7. Saying, "Goodbyes."

Used with permission from: Support Network, 1993, An Edmonton Society, Edmonton, Alberta.

Suicidal Myths and Misconceptions

Also important to an understanding of early adolescent suicidal behavior is an awareness of the misconceptions surrounding it. The following list of facts and myths about suicide was developed by the Support Network, an Edmonton, Alberta Society for their youth suicide prevention programs.

Table 2.5

Facts and Myths About Suicide

1.	Myth:	People who talk about suicide don't do it.
	Fact:	Out of ten people who kill themselves, eight have given definite clues about their intentions.
2.	Myth:	Suicidal people are fully intent on dying.
	Fact:	Most suicidal people are undecided about living and dying.
3.	Myth:	Asking a person to discuss their self-destructive thoughts will likely cause an act of self injury or suicide.
	Fact:	It is more likely that he or she will welcome an opportunity to discuss these feelings.
4.	Myth:	Once a person is suicidal, he or she is suicidal forever.
	Fact:	Individuals who want to kill themselves are suicidal only for a limited time. If saved from destruction, the person can go on to lead a useful and fulfilling life.
5.	Myth:	Improvement following a suicidal crisis means the risk is over.
	Fact:	Most suicides occur within three months following the beginning of 'improvement'.
6.	Myth:	Suicide is inherited.
	Fact:	Suicide does not run in families; however, the suicide of a family member can have a profound influence on the behavior of other family members.
7.	Myth:	All suicidal individuals are mentally ill.
	Fact:	Although the suicidal person is extremely unhappy, he or she is not necessarily mentally ill.
8.	Myth:	The motives for suicide are easily determined.
	Fact:	We have only the poorest understanding of why certain people commit suicide. Suicide is a very private, individual act.

Used with permission from: Support Network, 1993, Edmonton, Alberta.

Perhaps the most significant of all of these myths is number three. Contrary to popular belief that talking about suicide will put ideas into one's head, research shows that a frank discussion of suicide allows the suicidal youngster to work through and ultimately abandon many of these thoughts (McBrien, 1983). This common misconception will be fully discussed later in the thesis in the chapter on intervention and prevention methods. Another common misinterpretation of suicidal behavior is myth number five. A young person who exhibits a noticeable, "improved" mood swing can indicate that a decision to commit suicide has been made. This is particularly true of the adolescent who starts giving away personal possessions and saying "goodbyes." It is important that clinicians, teachers, parents, and young people be made aware of these myths and facts about suicide if society hopes to lessen adolescent suicidal behavior.

In summation, early adolescence is a period of change — bodily (rapid physical growth), psychologically (fluctuations in emotions), and cognitively (a move from concrete to more abstract thought). Our society is currently going through a period of rapid change too, as we move from a post-industrial to a highly technical telecommunications society. As a result, our cultural norms and values are in a state of flux. The changed gender roles, the rise in the divorce rate, and the fact that many parents are dealing with their own mid-life crisis has meant that many adolescents do not have a stable home environment. There are other changes that may adversely affect today's adolescents: changes in the family structure; the influence of the peer group; and the entrusting of traditional developmental responsibilities to agencies outside the home (Hafen, 1986). Hafen believes that these three changes can produce in some youngsters a deep sense of loneliness that is more abnormal and pervasive than should be expected during adolescence. A home bereft of love and support may also contribute to suicidal behavior in children and early adolescents. These and the other previously discussed factors can contribute to a lack of security and stability for many youngsters at a time in their lives when these elements are crucial to their well being.

CHAPTER THREE

Early Adolescence: A Stage of Growth and Change

Introduction

Although completed suicide is relatively uncommon among children and early adolescents, suicidal behavior (attempted suicide and suicidal ideation) is not rare and appears to be increasing. In seeking an explanation for self-destructive behavior within this age group, we need to look further than the precipitating causes and motivations of the phenomenon. We need to examine the factors that remove coping options, decrease the support systems or diminish coping skills required for the healthy development of early adolescents (Shaffer, 1987). These options, support systems, and skills are each influenced by the physical, social, and cognitive transitions encountered during early adolescence.

To better understand suicidal behavior in youngsters aged 10 to 14 years, it is helpful to identify the developmental characteristics associated with early adolescence. We shall examine the physical, social and cognitive changes common to this age group with a particular emphasis on how these changes might influence suicidal behavior. Understanding the developmental process unique to the early adolescent may help to explain why suicidal behavior is an option for some of these youngsters.

Cognitive growth and change which occurs during puberty will be discussed with an emphasis on the ways in which the thinking of an early adolescent is superior to that of a child, and as well, the idea of the "developmental gap" which may help to account for the individual variations in cognitive ability.

All people experience the developmental passage referred to in the twentieth century as adolescence. Steinberg (1985) refers to the three major aspects of development occurring between the ages of ten to twenty years as the "fundamental changes of adolescence":

1. Physical - the onset of puberty - its physical manifestations.

2. Social - the transition into new roles in society - changing relationships at home, at school and with peers.

3. Cognitive - the emergence of more advanced ways of thinking - shift from concrete to abstract thinking.

Although these physical, social, and cognitive changes are universal, their effects are as varied as each individual who undergoes them. Since the consequences of these "fundamental changes" are uniquely individual and can occur over a ten year time span, some social scientists divide the process of adolescence into three phases (Atwater, 1988):

Phase 1. Early adolescence - ages 10 to 14 years (approximate).

Phase 2. Middle adolescence - ages 15 to 17 years (approximate).

Phase 3. Late adolescence - ages 18 to the early twenties.

These groupings correspond to those used in North American culture to designate middle or junior high school, high school, and college age students. Since the primary purpose of this thesis is to determine the effect, if any, of cognitive growth and change on early adolescent suicidal behavior, this chapter will deal only with youngsters aged 10 to 14 years. It will also include a brief discussion of the impact of the physical changes of puberty and their influence on the social aspects of early adolescent development.

Physical Changes and Their Social Impact

Adolescent physical development is dramatically revealed through the biological changes of puberty. The impact of puberty — that universal physical manifestation of adolescent development — is unique to each youngster since it is the result of both individual genetic endowment and environmental experience. Although its external signs seem to appear suddenly, puberty is not a single event but a developmental process which begins at birth with the presence of the hormones which will accelerate during early adolescence and result in reproductive capability.

Puberty coincides with early adolescence from about 10 years to about 15 years, and involves physical changes that occur as the child grows into the adult. There are five noteworthy physical manifestations of puberty (Marshall, 1978):

1. A **rapid acceleration in growth**, resulting in dramatic increases in both height and weight.
2. The **further development of the gonads**, or sex glands, which are the testes in males and the ovaries in females.
3. The **development of secondary sex characteristics**, which involve changes in the genitals and breasts, and the growth of pubic, facial, and axillary (body) hair, and the further development of sex organs.
4. **Changes in body composition**, specifically in the quantity and distribution of fat and muscle.
5. **Changes in the circulatory and respiratory systems**, which lead to increased strength and tolerance for exercise.

These five physical manifestations make up the pubertal process. The pubertal process, a gradual increase or decrease of hormones present since birth, begins when the hypothalamus signals the pituitary gland to release hormones known as gonadotropins. The gonadotropins cause the ovaries and the testes to increase their production of estrogen and androgen (Nielsen, 1991). The timing of the initiating signal of the hypothalamus is unique to each early adolescent. The normal developmental range of pubertal onset can be as early as 9 or as late as 15 1/2 in girls and as early as 10 1/2 or as late as 13 1/2 in boys (Santrock, 1987). The interval between onset and complete pubertal maturation can be as short as 1 1/2 years or as long as 6 years for both sexes (Steinberg, 1985). Thus within any normal group of early adolescents some youngsters may have completed pubertal maturation before others have even begun (Steinberg, 1985). This explains the variety of physical differences commonly found in youngsters of the same age.

Environmental factors, including improved health, nutrition, and sanitary conditions also influence the onset of puberty. Environmental differences are used to explain why children from richer, healthier, and nutritionally advantaged countries tend to enter puberty earlier than children from disadvantaged, economically poor countries. Researchers use the average age for the onset of menarche (first menstruation) in girls across cultures to indicate that environmental factors

contribute to the decrease in age of the onset of puberty. Although menarche occurs late in the pubertal process, it can be used as an indication of adolescent maturation (Steinberg, 1985). Over the last 100 years the age at menarche has dropped from around 16 years to an average of 12.8 years in North America. This trend towards early maturation seems to be levelling off in most industrialized countries.

Notwithstanding the influence of environmental factors on puberty, most researchers contend that a person's genetic heritage is a critical factor in determining the onset of puberty and the amount of height and weight achieved by the end of pubertal maturation. To support this contention, Nielsen observes that the best predictor of a ten year old's pubertal growth is the adolescent growth pattern of their same-sex parent (1991). Youngsters tend to possess similar basic body types both before and after puberty, so that those who are tall and slender in grade three will generally be tall and slender in grade 12. Regardless of their appearance at the onset of puberty, most adolescents resemble their parents in height and general body profile by the end of this developmental period (Nielsen, 1991).

Since early adolescent cognitive growth and change is the primary concern of this thesis, only two of the five major physical manifestations of puberty will be discussed together in this chapter:

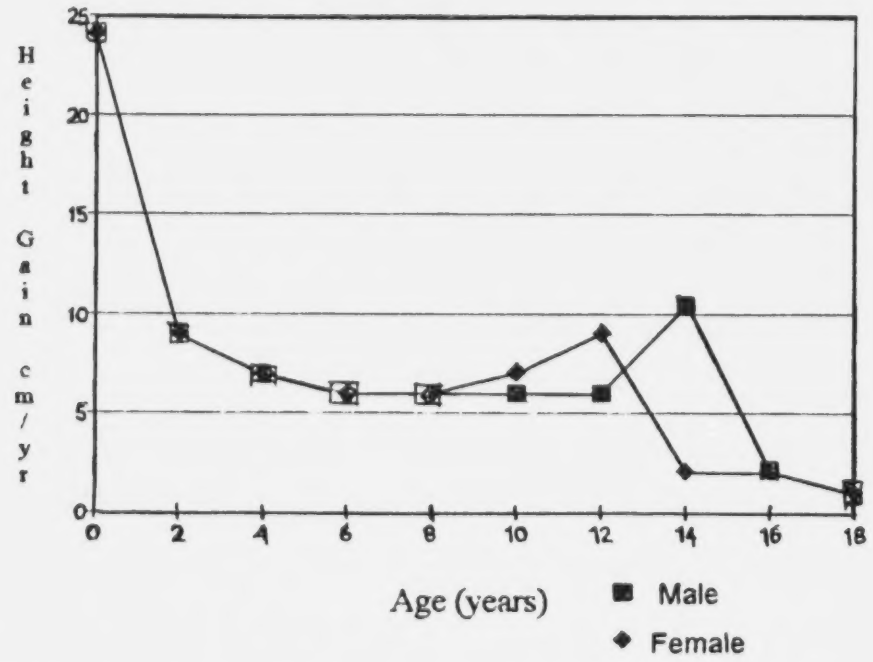
1. Rapid acceleration in growth, early and late maturation, their impact on the early adolescent, and
2. The development of secondary sex characteristics, the impact of changes to the body's appearance on early adolescents, and the impact of menarche on girls.

The discussion of these two areas of physical change will focus on how coping with rapid or negligible growth or changes in body appearance affect the psychological well-being and the social behavior of early adolescents.

Rapid acceleration in growth

The endocrinological effects of puberty are dramatic. During the brief period of early adolescence a youngster's body changes from a child's into that of a young adult. Within approximately four years, the average adolescent grows almost 12 inches, matures sexually, and must adjust psychologically and emotionally to a complete body transformation. This "growth spurt" occurs for the average girl sometime between 9.5 and 14.5 years and between 10.5 and 16 years for boys (Nielsen, 1991). Although the increase in height and weight during early adolescence is dramatic, equally relevant is the speed at which it unfolds. At the time of greatest height increase the early adolescent is growing as fast as a toddler; for boys this is 10.5 centimeters (4.1 inches) per year; for girls, about 9.0 centimeters (3.5 inches) (Steinberg, 1985). The following graph 3.1 dramatically illustrates this remarkable "growth spurt" (Santrock, 1987, p. 103).

Graph 3.1



Adapted from Santrock, J.W. (1987). Adolescence, 3rd Ed. Dubuque, Iowa: Wm. C. Brown Publ. p. 103.

Development of secondary sex characteristics

Another visible indication of pubertal development is sexual maturation. Sexual maturation for girls includes growth of pubic hair and breast development. Either of these changes may occur first, with axillary hair appearing later. During these bodily changes the early adolescent girl grows in height and generally the hips become wider than her shoulders. Menarche occurs late in this process, on average at 12.8 years, and the menstrual cycle is irregular for the first few years. Full reproductive ability may follow menarche by a couple of years. The normal age range for development and maturation of these sexual characteristics in girls is between 9 and 16 years.

Girls generally have mixed feelings about reaching menarche. Brooks-Gunn & Peterson (1983) state that today's adolescent girl has a less negative attitude towards the onset of menstruation than girls of 25 years ago, perhaps because receiving information about menstruation from other women leads to a more positive attitude. Classes in physical maturation and health in elementary and junior high school have also contributed to this positive change in attitude.

Sexual maturation in boys include increase in size of testicles and penis, testes development and growth of pubic hair. These changes are accompanied by voice changes, first ejaculation, onset of maximum growth and growth of axillary hair and facial hair. The normal age range for development and maturation of these characteristics in boys is from between 11 to 17 years.

The impact of the physical changes of puberty

The physical manifestations of puberty bring a concurrent change in the early adolescent's self image and behavior. These, in turn, bring changes in the youngster's responses to family and friends. For example, privacy is an important issue for most early teens. This is due as much to their changing bodies as to their need to exert more control over certain aspects of their

lives as they move into young adulthood. There are many psychological and social reactions associated with the physical changes of puberty. Two of particular interest to this thesis are the reaction of the early adolescent to body image and the effects of early versus late maturation.

Santrock (1987) reports that early adolescents are more dissatisfied with their bodies than late adolescents. He also found that both girls and boys who had positive attitudes about their bodies had higher opinions of themselves overall. Teachers and parents of early adolescents report that this age group spends an inordinate amount of time "checking on their image" in front of a mirror, as part of an extreme self consciousness during puberty. (Later in this thesis discussion of the imaginary audience and other aspects of egocentrism will demonstrate a possible link between this behavior and early adolescent suicidal behavior.) It is generally accepted that physical appearance affects how we feel about ourselves and how others respond to us. The response of others is particularly important to the self-esteem and self-concept of the early adolescent.

In the North American culture both adults and adolescents view someone who is tall and athletically built — either male or female — as more attractive than someone who is fat, short, or extremely skinny (Nielsen, 1991). Early adolescents, being particularly self-conscious, look to their peers and sometimes grownups for affirmation about their appearance. This explains why certain fads in dress and speech patterns are popular at this age. When adolescents do not receive positive feedback about their looks, their fluctuating self-esteem can plummet. However, since most early adolescents are unsure of themselves, compliments, especially those from adults, may be ignored or greeted with a "what do you know" snarl (Mitchell, 1986). Thus moodiness emerges in early adolescence as the youngsters attempt to cope with major changes in their physical appearance and the resulting emotional ups and downs. For example, the early adolescent's prickly exterior prevents adults from giving them the hugs and cuddles they still need (and secretly want) but are usually reluctant to ask for.

The relationship between self esteem and body image is especially problematic for girls in our society because most early adolescents, particularly boys, "judge the book by its cover" and are less interested in what is inside the book — someone's personality (Nielsen, 1991). When body image does not meet the culturally accepted "ideal," many early adolescents experience anxiety and low self esteem, both of which are contributing factors to suicidal behavior. These two factors, plus the normal stress-producing effects of puberty, do not themselves lead to suicidal behavior, but when added to the life pressure of an early adolescent who is already experiencing the turmoil of a dysfunctional family or school failure, they can push the youngster into the "at risk" category for suicidal behavior.

The impact of early or late maturation

Does age of onset of puberty — early or late maturation — influence the personality and behavior of the early adolescent? According to research compiled by Peterson and Taylor (1980), early maturation has several advantages for boys. For girls the consequences seem more varied. Generally speaking, most differences between early or late maturation seem to be resolved by the end of the middle adolescence phase of development.

Boys. Early maturing boys have a physical advantage athletically. Their increased height gives them an advantage with girls of the same age who are generally taller than most boys. Adults tend to give early maturers more responsibility, more freedom and tend to view them as being more mature mentally. Chosen more often as leaders by their peers, early maturing boys tend to develop positive self esteem and confidence in social situations. However, maturing early may be a disadvantage upon reaching adulthood. Some researchers report that early maturers, who were confident and responsible as adolescents, become conforming, rigid, and self-protecting as adults (Santrock, 1987). Steinberg's (1985) interpretation of this phenomenon is that early maturers are pushed into adult roles of responsibility and leadership too soon, thus their spontaneity and risk taking skills are under developed. Early maturation may not allow these

youngsters the opportunity to adjust slowly to physical maturity and to search for their own identity through adolescent experimentation (Atwater, 1988). An early adolescent who physically appears "grown up," but who, it must be remembered, has the cognitive development of the average 12-year-old, can develop feelings of inadequacy if pressured to "act wisely" beyond his years. These feelings of inadequacy, when coupled with a non-supportive home life, may cause the early maturing adolescent to be at risk for suicidal behavior, particularly if too many "grown up" responsibilities are thrust upon him.

Late maturing boys, on the other hand, are generally considered at a disadvantage and may develop a negative self-concept and feelings of rejection. Despite the theoretical importance of these factors, there has been no systematic research investigating the link between late maturation in boys and early adolescent suicidal behavior. However, their longer pubertal period of adjustment may allow late bloomers to acquire cognitive mastery and creative social coping skills that will prove beneficial during late adolescence and adulthood (Livson & Peskin, 1980).

Girls. Ironically, it is the early-maturing girl who appears to be at the greater disadvantage during early adolescence. As with the late maturing boy, she is perceived as being "out of step" with her peers. Although research findings have been less consistent for girls than for boys, early maturing girls appear to be "less popular, less poised, less expressive, and more submissive, withdrawn, and unassured than [their] age mates" (Livson & Peskin, 1980, p. 71). Around age 12 or 13, during grade six or seven, when conformity is uppermost in the social world of early adolescents, the early maturing girl is seen as too different from both male and female peers. Because she is more physically advanced than most of her female classmates and taller and more sexually developed than nearly all of her male peers, physical maturity may bring embarrassment and painful self-consciousness rather than social acceptance. It appears from the research that, although the early maturing girl stands out in elementary school, her physical development is less apparent in junior high when she is among other physically mature and older

schoolmates. For girls, early physical maturity may elicit sexual advances for which they are ill prepared due to their social, emotional, and cognitive immaturity (Nielsen, 1991). Early maturing girls may be somewhat more "at risk" for suicidal behavior than other girls their age, particularly if their physical bodies cause unwanted sexual harassment or assault. Having to use the limited social confidence and skills of a child to cope with the physical body of a 16-year-old can be extremely stressful. The normal emotional fluctuations of puberty can overwhelm the girl who has a home life bereft of support and filled with sexual taunts from boorish male relatives about her emerging sexual body. However, it is generally accepted by scholars of adolescent behavior that early maturing girls and late maturing boys who endure self esteem problems in adolescence tend to develop social coping skills that prove useful later in life (Steinberg, 1985).

As with late maturing boys, late maturing girls, due to their extended preadolescence, tend to achieve more fully developed social skills. According to Livson and Peskin (1980) both late maturing boys and girls showed higher levels of "intellectual curiosity, exploratory behavior, and social initiative" than their early maturing counterparts.

Although puberty is the universal aspect of adolescent development, its impact on the individual is influenced by the psychological and social context encountered during this period of maturation. The physical changes of puberty are a source of stress and adjustment. How much disruption it causes in the early adolescent's life, I believe, is related to earlier childhood experiences, either positive or negative, and whether the youngster has sufficient positive self esteem to see them through these years of physical, mental, and social change. A family situation that provides support and encouragement rather than chaos and humiliation can mean the difference between an early adolescent who is "at risk" for suicidal behavior and one who is not, in the face of the normal stresses related to puberty. I concur with Nielsen (1991) that the major responsibility of teachers, clinicians, and particularly parents is to greet these emerging young

people with a sense of humour and to accept, understand, and care for their physical beings in ways that bring them greater strength and less pain.

Cognitive Growth and Change

As was previously discussed, early adolescents have to cope with pubertal changes of a physical and social nature, at the same time that they begin a cognitive transition from concrete to abstract ways of thinking. As their bodies change in appearance, their thinking capacity also becomes more advanced, efficient, and generally more productive.

The early adolescent's ability to think becomes superior to that of the child's in several important ways:

1. They think about possibilities as well as actualities,
2. They think through hypotheses, and make propositions and indulge in perspective taking,
3. They think about abstract concepts, thinking about one's own thinking (Steinberg, 1985).
   Idealistic reform is a component of abstract thinking in which the early adolescent develops the ability to create and examine moral propositions (Mitchell, 1992).

The cognitive advancement of each early adolescent occurs gradually through their own unique pattern of maturation that is influenced by genetics and culture. We will now look briefly at each of these advances in thinking skills.

Thinking about possibilities - (not just actualities)

During early adolescence youngsters acquire a larger repertoire of problem solving strategies. Their thinking is less bound to the concrete; the "seeing is believing" style of children. For the child possibility is what is real or observable, or relates to immediate personal experience. However, the early adolescent sees solutions within a myriad of possibilities — what is real is only a small part of what is possible. Children do not wonder about changes in their personalities or about how their lives might be changed by different career choices. Children accept themselves at face value — who you are is what you are. Early adolescents, in contrast,

begin to realize that who you are is just one possibility of who you might become. Perhaps this contributes to the faddish dress codes, colloquial speech patterns and role experimentation common to this stage of development.

When thinking about possibilities, early adolescents are far more adept than children in moving from the specific to the abstract, in systematically forming possibilities and explanations, and in comparing observations with what they think is possible. This emerging ability to reason systematically about the abstract is reflected in the higher performance levels in mathematics, science, and logic that generally appear in the junior high school curriculum. Although early adolescents are capable of higher level thinking, many youngsters do not fully attain these skills until their late teens or early twenties — and some apparently never attain them. During early adolescence, youngsters face many social and physical changes. Normal pubertal adjustments are complicated by immature cognitive development, which may be inadequate to handle increased academic expectations and can cause some early adolescents to feel defeated and inadequate. These feelings can lead to intense self-criticism; which can be self destroying at an age when most youngsters are already extremely self-critical. Egocentrism, in the form of the personal fable, reaches a peak of influence during this stage of life; as a result, the early adolescent believes that his or her inadequacies are greater and more horrible than those experienced by anyone else. Since self-loathing and feelings of inadequacy are common correlates of suicidal behavior, perhaps there is a connection between the normal complexities of early adolescent cognitive development and self-destructive behavior.

The ability to think systematically about possibilities has practical implications for the early adolescent. Many parents and teachers report that their emerging teenager "suddenly" becomes more argumentative and verbally combative. Early adolescents for the first time can conceive of and therefore anticipate the possible responses of their parents and teachers. Therefore, they are able to reply with a series of retorts and defenses to further their cause.

Although this "debating skill" may seem to appear "suddenly" (children argue as well), early adolescents are more proficient and skillful in forming arguments to defend their case. Some of these arguments are illogical to the mature thinker but to the youngster the rhetoric sounds terrific, especially when they support an egocentric bias.

Thinking through hypotheses - (perspective taking)

Early adolescents are better able than children to examine data, to systematically test outcomes and to accept or reject outcomes in terms of hypotheses. Hypothetical-deductive reasoning relies on the ability to accept the possible rather than only the real. Consequently, this second advance in thinking ability is closely tied to the first.

Hypothetical thinking influences the social behavior of early adolescents. Perspective taking (the ability to put oneself in another's place), emerges during early adolescence. For the first time the youngster is able to think or feel about what another might be thinking or feeling. Conditional statements are used often in this process: If someone teased me like that, then I would be unhappy too. The perspective taking aspect of hypothetical thinking is an important component of the imaginary audience. This connection will be developed in the next chapter on adolescent egocentrism.

Hypothesis testing is a valuable tool to use in arguing one's point of view — particularly with grown-ups. It can be used to allow the formulation of subsequent arguments especially if the first is dismissed. It is also an important aspect of decision making. Early adolescents who have a well developed hypothetical thinking ability can use their skill to plan ahead, foresee consequences of various actions, and to choose the best alternative.

However, many early adolescents have difficulty considering more than one solution to a problem. I believe that this limitation within their cognitive ability is partly due to the negative effects of adolescent egocentrism, as well as delays in development. The fact that many youngsters are unaware that their actions may have dire consequences has implications for both

school curriculum and suicide prevention programs. It will be argued in chapter five that, because of this feature of early adolescent thought, schools should teach not only academic subjects, but also effective communication and decision-making skills necessary for the healthy social development of young people.

To utilize formal hypothesis testing, it is necessary to understand conditional relationships — if X is ..., then Y must be. We have seen how this skill is used in the perspective taking ability that emerges during early adolescence. The youngster who is adept at thinking hypothetically and can see beyond the concrete to the possible [and not all youngsters are capable of this] is able to apply a general conditional statement to a specific situation. Santrock (1987), reports two other significant components of hypothesis testing. The formal operational thinker must be able to apply "falsification strategy" in hypothesis testing. This involves the understanding that to prove a hypothesis true, one must also prove it false. This ability is often used in formal debates when a participant plays "devil's advocate" and argues a position contrary to his or her true beliefs. (It has been my experience that early adolescents develop this capability near the age of fifteen.) The third component of hypothesis testing is "nonverification insight". This is the understanding that even when certain information is consistent within the hypothesis, the hypothesis may still not be proved (Santrock, 1987, p. 131).

Researchers have found that each of these three components of hypothetical testing ability develops independently and at a different rate from the others, with the result that even some college age students are not capable of all three. This inconsistency in development becomes important when we look at possible explanations for early adolescent suicide. Santrock (1987) states:

> ... the formal operational thinker tests her hypothesis with judiciously chosen questions and tests. Often a single question or test will help her to eliminate an untenable hypothesis. By contrast, the concrete thinker often fails to understand the relation between a hypothesis and a well chosen test of it — stubbornly clinging to the idea despite clear, logical disconfirmation of it. (p. 132)

As indicated earlier, the process of moving from concrete to formal thinking does not occur in a flash. Many early adolescents do not possess a fully developed hypothesis testing ability, but they have enough ability to believe that their abstract ideas are justifiable, even when they seem illogical to others. Thus, the early adolescent caught in concrete thinking and the negative aspects of egocentrism (her problems are unique and thus insurmountable, even when there is ample, contrary evidence) may view suicide as the "only" escape from these problems. This view, coupled with an unrealistic view of death, can lead to disaster.

Hypothesis testing — the ability to think through a problem to a logical conclusion — is a powerful intellectual skill. A later chapter of this thesis will discuss the idea that directly teaching every day problem solving skills using examples familiar to early adolescents could prove beneficial in the prevention of early adolescent suicidal behavior by lessening the effects of adolescent egocentrism.

Thinking about abstract concepts - (thinking about one's own thinking)

Two other terms used to describe the more systematic abstract thinking ability which emerges during early adolescence are meta-cognition and second order thinking. Both of these terms refer to the ability "to think about thinking or to think about thoughts". We will refer to this growing ability to think about the abstract as "thinking about thinking", for it seems to be a useful definition of this developing cognitive skill.

Early adolescents are more adept than children in explaining the strategies they use when thinking about, organizing, memorizing, and recalling information. The ease with which adolescents execute verbal problem-solving tasks demonstrates this ability. For example, children have considerable difficulty making inferences about relations between inanimate objects. Early adolescents begin to develop an ability to take the abstract elements A, B, & C and infer that if A = B and B = C then A must also equal C. A child needs concrete elements to see the

relationship, while the early adolescent can draw the conclusion verbally after mental manipulation of the elements.

As early adolescent thinking becomes more abstract, they become more proficient in appreciating the nuances of meaning used in language. The evolution from the literal thinking of childhood leaves these youngsters less gullible and more sophisticated in their comprehension of various forms of wit and humour. Their understanding of verbal analogies is a good example. Children tend to focus on the concrete familiarity of word association, whereas early adolescents perceive the abstract, conceptual relationships between them. Early adolescents understand that analogies use an underlying abstract principle involving either antonyms or synonyms. Early adolescents are better than children at comprehending the subtle messages underlying parables and fables (Elkind, 1976). They can do this because of their increased understanding of the use of metaphor — the implied comparison between two ideas conveyed by the abstract meaning of the ideas used to make comparisons. The emerging use of puns, limericks, satire, parody and double entendres also reflects the early adolescent's knowledge of more advanced styles of language.

Idealistic Reform

Another aspect of abstract thinking is the early adolescent's awakening interest in idealistic reform. Idealism or social thinking draws heavily on both abstract and propositional thought. The application of advanced reasoning allows the youngster to think in terms of propositional statements which can be believed, doubted, or denied. The investigation of ideas beyond reality, particularly in the realm of interpersonal relationships and political, social, and ecological principles becomes important to some early adolescents.

Unlike children who think most often in terms of what is real and limited, early adolescents think about ideal worlds: Utopias, where everyone lives in peace and harmony; Ideal persons: the perfect parent who allows the teenager total freedom; and the Ideal self: who can

accomplish amazing feats, solve all the world's problems and is indestructible. It will be demonstrated later in the thesis how this personal idealism can be extended into the egocentric form of the personal fable, but for the moment it is sufficient to point out that the cognitive structure of the early adolescent is greatly influenced by egocentrism during this process of growth. As Muuss points out, it becomes difficult for the youngster to differentiate "between his own highly idealistic thought processes (how things ought to be) and the real world (how things are) (1988, p. 271). Or to further emphasise this type of thinking, consider Piaget's observation on the nature of adolescent idealism:

> Adolescent egocentricity is manifested by belief in omnipotence of reflection, as though the world should submit itself to idealistic schemes rather than to systems of reality. (Piaget, 1967, p. 64)

Adolescents are often frustrated and angry because their idealistic solutions to social, political, and ecological problems are not accepted with universal acclamation, but rather, are thought of by adults as mere "unrealistic fantasy flights into future possibilities" (Santrock, 1987). Eventually as these youngsters mature intellectually they discard romantic dreams to better accommodate the "real" world. This is thought of by some youth watchers as the "loss of innocence".

Finally, the emerging ability of the early adolescent "to think about thinking" can result in exaggerated forms of intellectualization, self consciousness and introspection, which are all components of Elkind's (1967) theory of "adolescent egocentrism". Steinberg (1985) uses aspects of "adolescent egocentrism" when he explains three extreme forms of this developing ability:

> With this new ability early adolescents can be introspective, they can think about their own thoughts and emotions. However, extreme self-absorption; or a belief in the uniqueness of your own emotional experience can develop into a sense of personal immortality, Elkind's idea of the *personal fable*. The second extreme form occurs when early adolescents become unduly self-conscious and think about how others think about them. In anticipation of the admiring or critical responses of others, the early adolescent constantly constructs and reacts to an *imaginary audience* (Elkind, 1981). Finally when these youngsters over-intellectualize and turn relatively simple and concrete matters into complex and

> abstract ones; such as attempting to rewrite the laws of physics, then they exhibit a phenomenon Elkind (1978) calls *pseudostupidity*.

The process of modifying these extremes is important to the psychological growth and well being of the youngster. These new cognitive abilities permit self-exploration that is important in the development of a stable sense of self. A more complete discussion of Elkind's theory of adolescent egocentrism, and how these intellectual advances can adversely affect some youngsters will be presented in the next section. However, it is first important to discuss the idea that a developmental gap exists between the concrete operational stage of thinking and the efficient and effective use of formal operational thought.

Developmental Gap

Not all young people (or even adults) effectively develop the capacity for abstract thinking or formal operational thought that emerges during early adolescence (Elkind, 1974). Even Piaget's theory cannot fully explain the different levels of thinking that characterize early adolescent cognitive development. Both Atwater (1988) and Santrock (1987) cite research that suggests that although formal operational thinking tends to increase with age many adolescents do not use hypothetical-deductive reasoning or propositional logic when it is needed. They report a study of 588 students in grades seven through twelve, the percentages of youngsters using formal operational thought ranged from seventeen percent (17%) for those in grade seven (7) to thirty-three percent (33%) for those in grade twelve (12). Other research demonstrates that only seventeen percent (17%) to sixty-five percent (65%) of college students use formal operational thought consistently (Santrock, 1987). If this type of cognitive style is not commonly used by late adolescents or early adults, we should not be surprised that early adolescents, who are only just acquiring this ability, are not always capable of using formal operational thought. For some youngsters early adolescence is a period of consolidation of concrete operational thought (Hill, 1980).

Santrock (1987) believes that most research assesses only hypothetical-deductive reasoning skills. Higher percentages of adolescents may use dimensions of formal operational thought not commonly assessed, such as; verbal problem solving abilities (abstract thinking), idealistic thinking (possibilities and future fantasies), perspective taking, and the advanced understanding of language (metaphor, analogies, satire, etc).

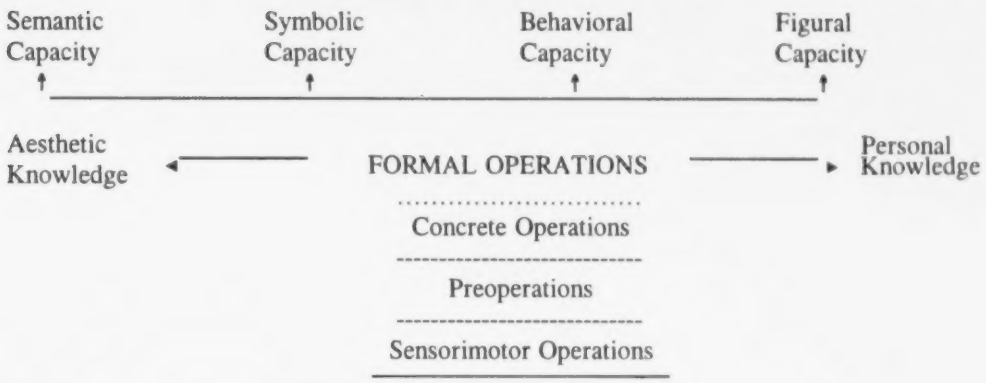
> Thus while all adolescents have the *potential* to develop formal operational thinking, and most can and do demonstrate it from time to time, not all adolescents (or, for that matter, all adults) employ formal operational thinking regularly and across a variety of different types of situations. The extent to which consolidated formal operational thinking appears depends on the environmental demands placed on adolescents as they develop and on the conditions under which their reasoning is assessed. (Steinberg, 1984, p.73)

As was just noted, some early adolescents may utilize formal operational thought when solving complex algebraic formulas but may not use advanced reasoning skills when faced with interpersonal problems. Limitations on acquisition of advanced reasoning skills may involve both environment and the content of the thought. To enable youngsters to reach the full potential of their reasoning skills, educators must be aware of the variations in cognitive development.

Piaget's theory of cognitive development relies on universal patterns of formal operational thought. His theory does not adequately account for the variation in individual development as noted by recent research. However, he believed that whether adolescents engage in formal operational thought depends on reasonably specific learning experiences (Piaget, 1972). Dulit (1972) refers to a "branch model" of cognitive development that may help to explain inconsistencies in the cognitive abilities of early adolescents. Dulit (1972) believes that with the onset of early adolescence a variety of cognitive options become available, only one of which is formal operational thinking. In this "branch model" of cognitive development the first three stages of Piaget's theory, sensorimotor, preoperational, and concrete operational remain and are little influenced by a specific teaching environment (figure 3.2).

Figure 3.2

A Branch Model of Cognitive Development



Adapted from Dulit's (1972) Branch model of Cognitive development

Dulit's (1972) branch model allows for individual differences in cognition which can be influenced by varieties of teaching methods and changes in the environment. Some cognitive developmentalists, relying on Piaget's assertion that individual capability for formal operational thought is influenced by specific learning experiences, believe that early adolescent cognitive development is sensitive to and can be shaped by certain age related educational and environmental experiences (Muuss, 1988; Stevenson, 1992).

Perhaps enhancing the lives of early adolescents through specific teaching and environmental experiences can improve their formal operational thought and reduce the negative effects of early adolescent egocentrism. Muuss (1988) found support for Elkind's theory that self focus or egocentrism is at its peak in early adolescence and gradually declines as youngsters move through high school and college. Some research also corroborates the view that social egocentrism (self focus) declines and sociocentrism (community focus) increases through personal growth and development (Muuss, 1988). Perhaps the decline in social egocentrism is partly due to the educational experiences, environmental changes, and increased life development that occur

during high school and college. Research of this type suggests that reducing the negative effects of egocentrism might reduce the incidence of early adolescent suicidal behavior.

Stevenson provides a helpful summary of early adolescent cognitive growth and change, as well as, strategies for lessening the effect of the developmental gap.

> ...2. Age designations for the concrete and formal operational stages are approximate. Individual children move from one stage to another according to an idiosyncratic combination of physical maturity, firsthand experiences working with concrete things, and interactions with other people, especially other children and people outside the school. It is also common for them to function at one stage for some operations and at a different stage for others.
>
> 3. Early adolescent intellectual development is enhanced when youngsters actively explore their world by having firsthand interactions with people and objects in the environment: talking, working with adults and classmates, using objects such as tools, and organizing personal experience. They construct their own knowledge (Schemas) through such activities.
>
> 4. Genuine learning is the learner's process of making and remaking concepts (assimilation and accommodation) through first hand activities. (Stevenson, 1992, p. 96)
>
> [Stevenson, (1992) uses Piaget's theory in defining the following terms: schema - perceptions of intellectual constructs that embody parts, interrelationships, and meaning, assimilation - incorporation of new experiences, and accommodation occurs as schemas change to reflect new experiences.]

In this chapter we have briefly considered the effect of physical, social, and cognitive changes on the early adolescent. As early adolescents reluctantly bid childhood goodbye and look towards the growth into adulthood with mixed emotions, one writer describes the transition with poignancy and humour:

> In the space of three years the change is drastic. At 12 (usually seventh grade) they are clearly on one side of limbo, at 14 on the other. I always saw my high school students as people becoming adults. They had the size and shape of adults, the physical and mental abilities of adults; they were clearly becoming someone. Early adolescents are a different story. They are also in the process of becoming, *but they move erratically back and forth between the world of childhood and the world of adolescence*. (Martin, 1972, p.187)

CHAPTER FOUR

Early Adolescence: Is There a Connection Between Egocentrism and Suicidal Behavior?

Introduction

In this chapter, I will briefly discuss the developmental theories of Erikson and Piaget as they relate to early adolescent cognitive changes, for this discussion provides a necessary background to David Elkind's theory of adolescent egocentrism. As well, I will explore possible connections between early adolescent egocentrism (a vital component of adolescent cognitive development) and suicidal behavior in this age group.

Erikson

As dominant factors in personal psychosocial development throughout the life cycle, unconscious thought, early family experiences and later sociocultural expectations form the basis for Erikson's theory. In Erikson's view the fifth stage in the development of the life cycle, which occurs during early adolescence, is called identity versus identity diffusion (confusion). Role experimentation and personality formation are key components of Erikson's theory of the formation of adolescent identity. As adolescents cope with the physical and hormonal changes of puberty, they enter a transition phase in cognitive development which allows a new reliance on a variety of problem solving strategies. During this phase they must also cope with an upheaval in their personalities and self images. Adolescents, in striving to make choices free from parental control, are often terrified of failing or making wrong choices. Erikson suggests that the early adolescent is confronted with a myriad of choices (partly as a result of an emerging ability to think more abstractly and more comprehensively) and therefore enters into a period of "psychological moratorium". During this stage, the adolescent experiments with different roles and with different dimensions of the personality. In Identity: Youth and Crisis, Erikson (1968) suggests that youths in search of their unique identity must experience extremes in order to find a middle ground. It is this state of identity flux that may account for adolescent behavior that

is sometimes considered delinquent, such as running away from home, or dropping out of school, and, as well, displaying extreme mood swings, faddish dress and speech, and even self-destructive behavior. As an example of the alienation of *"identity confusion"* Erikson uses Biff's statement in Arthur Miller's Death of a Salesman:

> I just can't take hold, Mom, I can't take hold of some kind of life". Where such a dilemma is based on a strong previous doubt of one's ethnic and sexual identity, or where role confusion joins a hopelessness of long standing [or, I believe, inadequate feelings of trust due to a dysfunctional childhood], delinquent and "borderline" psychotic episodes are not uncommon. Youth after youth, bewildered by the incapacity to assume a role forced on him by the inexorable standardization of American adolescence, runs away in one form or another, dropping out of school, leaving jobs, staying out all night, or withdrawing into bizarre and unaccessible moods. (Erikson, 1968, pp 131-132)

This instability of the adolescent personality might also account for a susceptibility to suicide, which might be seen as a way of escaping the pressures of decision making. This idea will be developed more fully later in this thesis.

Piaget

Piaget believes that growth in logical thinking is an inevitable companion to adolescent development. He states that intelligence develops through the interaction of both hereditary and environmental forces. Piaget examined adolescent growth and change from the perspective of biological adaptation and cognitive motivation in stages; he claimed that the developmental stages are qualitative and usually occur in a predictable sequence. Central to his theory is the idea that in the development of intelligence there occurs significant qualitative changes. For example, not only do adolescents think with greater power than children but their thinking is fundamentally richer, deeper and hence qualitatively superior. In Piaget's view, early adolescence marks a transition to abstract patterns of thinking.

Although this thesis is mainly concerned with formal operational thought, this stage of Piaget's theory needs to be considered in relation to its immediate forerunner concrete operational thought. Through maturation of the brain and assisted by everyday learning experiences, a major

shift in conceptual development occurs in children between the ages of 7 to 11. They can think in concrete operations that is, they can manipulate intangible objects as long as they are tied to reality. At this stage they still cannot think abstractly with much proficiency. Children can also classify objects into different sets and see inter-relationships. Another ability which Piaget called "conservation", allows the child to see that certain features of an object (mass, weight and volume) remain constant despite changes in its appearance. Understanding "conservation", being able to imagine that a clay ball rolled into a long thin strip can be returned to its original shape, involves a reversible mental action. The essence of concrete operations then, is a reversible mental action on real concrete objects (Piaget, 1967). Being able to return to the starting point of an operation — the concept of "reversibility" — is a major turning point in the cognitive development of a child (Muuss, 1988).

Beginning in early adolescence, around the age of 11 or 12 years, children leave behind the physically oriented concepts of concrete operations and move towards formal operational thinking. "Formal" refers to what is mental or "capable of pure abstraction" (Atwater, 1988). A major difference between concrete and formal thinking is that the early adolescent acquires the ability "to reason in terms of verbally stated hypotheses and no longer in terms of concrete objects and manipulation" (Piaget, 1980, p. 72). The early adolescent begins to use hypothetical-deductive and logical reasoning in problem solving and has an advanced understanding of language usage.

> Formal thought reaches its fruition during adolescence. An adolescent, unlike the child is an individual who thinks beyond the present and forms theories about everything, delighting especially in consideration of that which is not" (Piaget, 1947, p. 148)

Being able to think beyond the present and to reflect about their own thoughts allows thinking that is filled with idealism and possibilities, rather than rigidly fixed on aspects of reality

which are concretely defined. Because of this newly acquired ability, adolescents spend considerable time imagining all kinds of future contingencies.

> In their thoughts adolescents can leave the real objective world behind and enter the world of ideas. They now control events in their minds through logical deductions of possibilities and consequences. Even the directions of thought processes change. Preadolescents begin by thinking about reality and attempt to extend thoughts toward possibility... To emphasize this point further, one could say that in operational thinking reality is the foreground and possibility remains in the background. In formal operational thinking, this relationship is reversed — possibility has become the foreground and reality has become simply one of many possibilities. (Muuss, 1988, pp. 187-188)

Consequently, the reversal in the direction of thought is a turning point in cognitive development. This ability to think in possibilities sometimes without a reality check may have implications for early adolescent suicidal behavior. Being able to dream about better worlds that do not and cannot exist, can "create opportunities for disillusionment and unhappiness". (Stillion, 1989).

Another aspect of formal operational thought is that it allows "perspective taking", or the ability to step outside one's self and anticipate another person's reaction to an event. Perspective taking coupled with vivid imaginative thoughts, and hypothetical thinking helps form the basis for the adolescent's construction of the imaginary audience, an idea subsequently developed by David Elkind.

Elkind

> The belief that others are preoccupied with one's appearance and behavior constitutes the egocentrism of the adolescent. (Elkind, 1981, p. 91)

Elkind suggests that adolescent egocentrism is a consequence of the emergence of formal operational thought. Adolescent egocentrism is characterized by two types of thinking which hold direct relevance to this thesis — the imaginary audience and the personal fable. Elkind (1967) states that these forms of egocentrism produce several negative outcomes in the transition from childhood to adolescence. Formal operational thinking frees the child from childhood

egocentrism only to entrap him in a new form of egocentrism typical of adolescence. With the onset of formal operational thinking, the young adolescent can for the first time conceptualize his own thoughts as well as the thoughts of other people (Elkind, 1967). This perspective taking ability is at the core of adolescent egocentrism. Although adolescents have the ability to think about other people's thoughts, they are unable to determine whether the objects of those thoughts are the same as their own or are different. As indicated in chapter three, early adolescents are, overly concerned with their own bodily changes; egocentrism causes them to conclude that other people are equally interested in their appearance and behavior. Consequently, youngsters constantly anticipate the reactions of others to their every action. Elkind translates this "anticipation" into the concept of the imaginary audience, which reflects the adolescent's assumption that others are as preoccupied with their appearance and behavior as they themselves are. It is generally assumed by theorists who accept Elkind's understanding of adolescent development that younger adolescents are more affected by self consciousness (since they are less experienced in using formal operational thought) than middle and late adolescents.

Elkind suggested that the concept of the personal fable complemented that of the imaginary audience. As a consequence of her feelings that she is important to so many people (the imaginary audience), the young adolescent views herself and especially her feelings as unique and distinctive (Elkind, 1981). Thus, no one else can possibly have the feelings, problems and concerns that afflict the young adolescent. Associated with these feelings of uniqueness is the false belief that one is indestructible. With an emerging interest in idealism and the ability to think in abstract terms, early adolescents can become so absorbed by their imaginary selves that their "mental" world becomes progressively removed from physical reality (Santrock, 1987). Therefore, they may "believe" that they will not die or that disaster may strike others, but never them. The connection between the imaginary audience and the personal fable and early adolescent suicidal behavior will now be more fully developed.

The Relationship Between Elkind's Theory of Egocentrism and Suicidal Behavior

We will now turn our attention to early adolescent suicidal behavior and the two concepts of adolescent egocentrism. It is argued in this thesis that a relationship exists between adolescent suicidal behavior and the two concepts inherent to adolescent egocentrism. David Elkind states that the imaginary audience may be responsible for many typical adolescent behaviors and experiences.

> ... the adolescent is continually constructing, or reacting to, an imaginary audience. It is an audience because the adolescent believes that he will be the focus of attention; and it is imaginary because, in actual social situations, this is not usually the case... (Elkind, 1981, p.91)

For example, self-consciousness so prevalent among early adolescents, may be a result of this imaginary audience. Much of the motivation of adolescent behavior is derived from the "anticipated response" of this audience. A strong desire for privacy and a reluctance to self-disclosure are seen as a reaction to the constant critical scrutiny of the "imaginary audience" (Elkind, 1981). This "audience" can be admiring as well. In fact Elkind (1981) states that some of the loud behavior and faddish dress during this stage are a result of the youth's inability to distinguish between what she sees as attractive and what others admire. According to Elkind (1981) one of the most prevalent forms of admiring imaginary audience is the anticipation of the reactions of others to one's own death. Fantasy and unrealistic notions comprise much of children's and early adolescents' view of death.

The literature on early adolescent suicide would indicate a relation between the adolescent egocentric concepts of imaginary audience and personal fable. One of the most common childhood fantasies about death is the belief that the child will remain behind to view the parents' grief and sorrow. (Elkind, 1981; Gardner, 1985; Giffin, 1983; Wahl, 1957). This concept is effectively described in Tom Sawyer when Tom returns home after running away to discover his aunt thinks he has been drowned. He savours the moment when he hears his aunt putting in a kindly word about him.

Wahl (1957) suggest that part of this fantasy is a desire for revenge against the parents. Wahl (1957) continued by stating that children frequently have high expectations of their parents, which are often unfulfilled and as a result, the child feels powerless both mentally and physically. So the deeply frustrated child or adolescent seeks revenge through suicidal behavior in hopes of inducing guilt and remorse in the parents. The idea of "hovering invisibly over the scene" (Giffin, 1983) may be due to the adolescent's unrealistic view of the finality of death. Durkheim believed, that children may think "death to be reversible" as late as age thirteen. Gardner (1985) stated that adolescents have an unrealistic view of the finality of death because violence on TV and the media is portrayed as commonplace. John Irving in his book A Prayer for Owen Meany comments on the triumph of television when it glorifies the untimely death of a public figure (as in the media coverage of the assassinations and funerals of Jack and Bobby Kennedy):

> ... Hester would say, 'Television gives good disaster.' I suppose this was nothing but a more vernacular version of my grandmother's observation of the effect of TV on old people: that watching it would hasten their deaths. If watching television doesn't hasten death, *it surely manages to make death very inviting; for television so shamelessly sentimentalizes and romanticizes death that it makes the living feel they missed something — just by staying alive.* (Irving, 1989, p. 442). (Italics mine.)

Although "real" public figures do not recover from fatal assassinations, TV and movie heroes often reappear the next week or in the next movie after seemingly violent deaths. This unrealistic portrayal of death may cause some early adolescents to view death as a temporary state. In a similar vein, Wahl (1957) states that some children view death as not "really dangerous" because of playing games like cops and robbers or Ninja turtles. Perhaps this idea carries over into early adolescence because of a delay in their cognitive development. Giffin (1983) suggests that because sibling deaths are rare, most adolescents have never seen a person die, nor have they experienced the attendant grief of death. As a result, death does not seem final. The influence of the fantasy world of the imaginary audience, a lack of life experience and the incomplete

formation of formal operational thinking may all contribute to the adolescent's idea that death is reversible.

Elkind suggests that adolescent actions which appear self-destructive may be attributed to one's personal fable:

> This complex of beliefs in the uniqueness of his feelings and of his immortality might be called a personal fable, a story which he tells himself and which is not true. (Elkind, 1981, p.93)

The adolescent's perception that she is always the center of attention (her imaginary audience) also encourages her perception that she is special and will be protected from harm (Elkind, 1978). The personal fable has adaptive value as it protects our ego from the "slings and arrows" of everyday life. In childhood and adulthood, the personal fable is in the background. However, for the adolescent it is all important (Elkind, 1978). Because of her personal fable the early adolescent has difficulty in distinguishing the problems unique to her from those problems common to all people. I believe that the adolescent's personal fable (believing her problems to be overwhelmingly unique) coupled with an unrealistic view of death (I will not die) contribute to using suicide as an escape from stress. In reviewing the literature on adolescent suicide, an escape from stress as a causative factor appeared time and time again. Martin (1986) states that "... suicidal individuals typically feel great stress that is perceived as unresolvable." Suicide is sometimes seen as a magical means of avoiding punishment by escaping through death (Schechter, 1957). For example, while researching this topic, I came across the following episode (Pfeffer, 1986): A young girl, believing herself pregnant and afraid to face the anger of her parents, attempted suicide. When asked why she sought this solution, she stated that to her death seemed like a dreamlike state from which she would awake to find her problem no longer existed. Hafen (1986) in Youth Suicide, proposes that an adolescent who does not see death as permanent is at high risk for suicide. He goes on to state that some young people see death as a "temporary state of pleasantness in which to escape problems". These adolescents,

Hafen (1986) continues, see death as a "gentle nurturing experience" or a way to achieve wish fulfilment. Similarly, Giffin (1983) found that suicidal adolescents thought of death as a "long peaceful sleep that will somehow make things better (p. 85)". Most people at one time or another have desired to escape from the stressful situations in their lives. Older adolescents and adults realize escape is impractical. They draw on their own life experience that assures them that solutions can be found and that life goes on. Young adolescents do not have this wealth of experience. As well, the egocentric nature of their cognitive development limits their perception of alternatives. As was mentioned previously, the positive side of the personal fable allows adolescents the opportunity to try out different roles and personalities. However, some adolescents who perceive their problems as insurmountable, immerse themselves totally in their fantasy world. Escape becomes more appealing than interest in tomorrow - because nothing will get any better (Pfeffer, 1986).

Another cause of suicide is social isolation. Here, too, the concept of personal fable might be a contributing factor. Early adolescents already view themselves as special and unique. This feeling of uniqueness can promote a profound sense of alienation, especially if the adolescent experiences sudden change in her life (Davis & Sandoval, 1991). For example, recent parental divorce, change of schools (particularly enrolment in a large impersonal school), alienation of friends, loss of significant other (either peer or adult) or loss of esteem through academic or athletic failure can all contribute to increased feelings of social isolation.

Common to both the concepts of personal fable and imaginary audience is the theme of the early adolescent's unrealistic perception of reality. Both Elkind (1981) and Hafen (1986) propose that we can help early adolescents the most by being aware of and accepting their view of reality. But at the same time, adults must encourage adolescents to verify their interpretation of reality against that of others — peers and adults. With that thought in mind, we will consider some methods of suicide prevention.

CHAPTER FIVE

Early Adolescence: Prevention of Suicidal Behavior

Introduction

During the few years of early adolescence (approximately 10 to 14 years), youngsters move continuously to and fro on a continuum between their dependence on grownups and the independence they seek as mature adults. As we learned in chapter three, early adolescents are engrossed in ideas, realizations and emotions that as children they could not imagine or experience. Since they encounter these emerging cognitive abilities for the first time their awkward handling of various situations can prove stressful and worrisome. It was noted in chapter four, that egocentrism also exerts pressure on the cognitive development of the early adolescent. Two aspects of egocentrism — the imaginary audience and the personal fable — appear to play major roles in the formation of a phenomenon referred to as "adolescent invulnerability". Elkind wrote that the personal fable can produce a sense of uniqueness so powerful that it "becomes a conviction that he will not die, that death will happen to others but not to him". (Elkind, 1967, p. 1031).

It is the premise of this thesis that aspects of adolescent invulnerability manifested in the imaginary audience and the personal fable contribute to suicidal behavior, particularly in early adolescence. While completed suicides are rare among this age group; 2.1% of all deaths aged 5-14 years, the percentage of youngsters who attempt suicide is much greater (Leenaars & Wenckstern, 1990). Although the actual rate of suicide attempts is unknown, some experts estimate it to be as high as 50 to 200 times greater than completed suicides (Hawton, 1986; Pfeffer, 1986; Garland & Zigler, 1993). Dyck (1990) reports that what is alarming about the percentage of suicide attempts among adolescents is that it is far greater than the lifetime rate for the general population, which varies between 1.1% to 4.2%. In fact, the CDC Division of Adolescent and School Health surveyed 11,000 8th and 10th grade students in 20 U.S. states on

several health issues. On the subject of suicide thirty-four percent (25% of the boys, 42% of the girls) had thought of killing themselves, and 15% had made a serious attempt (Center for Disease Control, 1989). More recently, Ackerman, (1993) writes that the Gallup 1991 Teenage Suicide study revealed that of the 1,152 American teens, ages 13-19, selected randomly from across the United States, 60% personally knew other teens who had attempted suicide; 15% had themselves considered suicide and 6% had attempted suicide. As noted in chapter one, suicidal ideation is also far from uncommon in childhood and adolescence. Pfeffer (1986) reported that of 101 elementary school children interviewed, 11.9% had suicidal ideas. Of the 313 midwestern high school students surveyed by Smith and Crawford (1986), 62.6% reported some suicidal ideation or action.

It appears that the rates for both suicide attempts and ideation have increased dramatically in the last 25 years. In fact Ackerman's (1993, p. 183) statement that "the Gallup survey provides the first empirical evidence that suicide is a significant social issue touching a majority of America's youth" demonstrates the need for effective programs for the prevention of suicidal behavior among adolescents. Therefore the purpose of this chapter will be two-fold; first to provide a brief overview of the risk factors most commonly associated with early adolescent suicidal behavior followed by a discussion of three major prevention methods currently being used to handle the increased frequency of suicidal behavior in youngsters. In the writer's view this analysis will confirm Stillion, McDowell, and May's (1989) belief that the "ambivalence of suicidal children and adolescents about dying has encouraging implications for prevention and intervention techniques *and that these* programs should move children and adolescents toward a positive view of life." (Italics mine)

Risk Factors - Redux

In reviewing the risk factors common to early adolescent suicidal behavior it is important to bear in mind the cautionary note sounded by Berman & Jobes (1991) and Garland & Zigler

(1993). These researchers stress that the risk factors associated with suicidal behavior may be different for attempted or completed suicide. This is particularly true as most of the research is conducted with those who have attempted suicide.

Berman & Jobes (1991, p. 107) summarize common themes which arise among the varied and dynamic individually oriented risk factors associated with early adolescent suicidal behavior. They caution that these "themes" are neither "necessary" nor "sufficient conditions", and are difficult to portray in interlocking VENN diagrams, such "schemata tend to concretize dynamic processes". To rank risk factors from most to least importance is difficult because these factors operate together in a number of differing combinations.

Negative personal history and psychopathology. Early life events that prevent the emergence of a positive self-concept, the inadequate development of social and interpersonal skills, negative role models for coping options, a family history of suicidal behavior and parental mental instability are all contributory aspects of adolescent suicidal behavior (Berman & Jobes, 1991). Of these, Pfeffer's (1991) studies of parasuicide showed that two factors were consistently associated with adolescent suicidal behavior. First, family stress due to actual or threatened changes in the parental relationship (death, separation, or divorce) resulting in lack of support for the youngster. Secondly, parental dysfunction i.e., suicidal behavior, depression, substance abuse, neglect and abuse of children, and exposure to violence.

In their review of the current literature pertaining to adolescent suicidal behavior, Garland & Zigler (1993) found that among completed adolescent suicides affective disorders (particularly attention deficit disorder) conduct disorder, antisocial personality disorder and substance abuse are most prevalent. Substance abuse, attention deficit disorder and conduct disorder are also associated with increased risk for suicidal behavior (Garland & Zigler, 1993). (It is my contention that some conduct and attention deficit disorders mask childhood and adolescent depression and, if this contention is correct, then the depression often makes youngsters suicidal.)

Substance abuse, commonly associated with adolescent suicidal behavior may be used as a stress reduction aid in the lives of "at risk" youngsters.

Although many suicidal adolescents exhibit attention deficit and conduct disorders they still come from a diverse and varied population. Shaffer identified a small number of suicidal youngsters who did not have school or behavioral problems. Instead these adolescents were rigid and perfectionistic, exhibited profound anxiety and appeared to be extremely vulnerable during times of change or dislocation (Shaffer, 1988). Perhaps there is a correlation between increases in suicidal behavior and certain transition points in the lives of school age youth. It is believed by some educational experts that the transition from elementary school to middle or junior high — grade 6 to 7, from junior or middle school to high school — grade 9 to grade 10, and from high school — grade 12 to university or full-time work are all critical, stress filled occasions for many youngsters. Felner (1992) suggests methods (which will be discussed in the section on prevention) that educators can implement to make the transition points less difficult and threatening for youngsters prone to increased anxiety and depression during these periods.

Previous suicidal behavior. A previous suicide attempt is the best single predictor of a completed suicide (Shaffer, Garland, Gould, et al., 1988). Research reviewed by Garland and Zigler (1993) stated that many suicide attempts are a cry for help rather than a wish to die. Whatever the intention the spectre of death remains ever present. The research of Diekstra (1989) and Spirito et al. (1989) suggests that 40% of attempters will make more attempts and of these youngsters, 10% - 14% will probably die by suicide. A frightening aspect of these numbers, revealed in a current study of adolescent suicide attempters, is that 10% of the second attempts occur within three months of the first, and 30% of the youngsters who reattempt never received any medical or mental health care (Spirito et al., 1992). The fact that nearly one third of adolescent attempters received no followup treatment has implications for both mental health

and school prevention programs. These implications will be addressed in the section on prevention.

Cognitive and Coping Skill Factors

Both Pfeffer (1990) and Shaffer et al. (1988) believe that within the adolescent age group many completed suicides, as well as nonfatal attempts, are carried out impulsively. According to Shaffer and his colleagues (1988) "impulsivity reflects not only angry aggressive behavior but low frustration tolerance and lack of planning".

Garland & Zigler (1993) in their research review found that hopelessness and depression, due in part to life stress, are often associated with suicide attempts in adolescence. As well, withdrawal often seen in suicidal adolescents may be as much a result of depression as it is a form of coping with life stress (Spirito et al., 1989). If life stress is determined to be a factor in suicidal behavior, it implies the absence of coping skills and alternative cognitive problem solving strategies. Berman & Jobes (1991) document several studies that show deficits among suicidal children and adolescents in problem solving skills, "particularly in terms of generating fewer alternative solutions to interpersonal conflicts", as well as a disinclination to seek social support. They also note that the "adolescent deficient in these problem solving skills is more likely to distort his or her perception of the problem situation, express greater hopelessness, and behave with more impulsivity". (Berman & Jobes, 1991; p. 100).

Garland & Zigler (1993) found opposing views on feelings of hopelessness as a predictor of adolescent suicidal behavior. Hopelessness seemed to be more common among suicidal attempters than among suicidal ideators. However, Pfeffer (1990; p. 79) after extensive research into risk factors associated with childhood and adolescent suicidal behavior, states that "... it seems apparent that a pessimistic [hopeless] view of one's life is an important issue for those considering to end their lives". She also points out that "... vulnerability in managing stressful circumstances arises when pessimism and/or impulsivity are evident". (Pfeffer, 1990; p. 80).

She concluded:

> ... factors of cognition and behavior such as hopelessness and impulsivity are associated with suicidal ideation and acts in children and adolescents and have general effects on a youngsters adaptive skills with regard to judgment and planning behavior. (Pfeffer, 1990, p. 80)

If Pfeffer's observation is correct, it demonstrates forcefully the need for effective prevention methods.

Drug and Alcohol Abuse

In their review of the research Garland & Zigler (1993) found that drug and alcohol consumption is a major catalyst in completed adolescent suicides. In fact, their review cited research that at least one third of adolescent suicide completers were intoxicated and more were under the influence of drugs at the time of death. Their review suggests that the association between alcohol and adolescent suicide has increased dramatically since 1978. Equally alarming, particularly in the United States, is the combination of guns and alcohol as factors in completed suicides. Guns, as opposed to other methods of suicide, are often only used when the adolescent is intoxicated. The availability of firearms in the home (the number of firearms per 100 Americans increased 47% between 1968 and 1979) explains why suicide by firearms has increased three times faster that other suicide methods since 1950 (Garland & Zigler, 1993). In Alberta, firearms accounted for 33.2% of the completed suicides in 1992 (Office of the Medical Examiner, Alberta). Advocating enactment of gun control laws should be a part of any prevention program. Restricting the availability of guns would be beneficial not only for suicidal youngsters but society in general.

Stressful Life Situations

Stressful life events were found to be closely associated with adolescent suicidal behavior by both Berman & Jobes (1991) and Garland & Zigler (1993). Stress originating from achievement pressure, family suicide, personal loss of a confidant (family/peer) and concern over

sexuality are linked to adolescent suicidal behavior (Berman & Jobes 1991). Concern over sexuality can cause extreme stress for homosexual youngsters who reveal their sexual preference and encounter rejection and isolation.

As was noted in chapter two, a dysfunctional family situation is a major cause of life stress. Family instability provides inadequate models for coping and problem solving skills but more importantly leads to increased social isolation and feelings of rejection (Berman & Jobes, 1991). Social isolation, alienation, and feelings of loneliness and helplessness appear often in the research as prime factors in adolescent suicidal behavior (Hawton, 1986; Dyck, 1990; Hicks, 1990; Pfeffer, 1990; Smith, 1991). Dr. Bryan Tanney, A psychiatrist at the University of Calgary, explains his belief that loneliness may be the prime factor in suicide by stating:

> One of the mistaken premises people have is that people kill themselves because they are mentally ill. There is clear evidence that people kill themselves because they have nobody to turn to. People with the HIV infection and AIDS don't kill themselves because they have HIV and AIDS, they kill themselves because they're lonely and people have withdrawn from them. The same is true for other high risk groups... (Tanney, 1992; p. 9)

Tanney (1992) believes that to enable society to offer support to suicidal people; suicide prevention programs should focus on communication to remove the fear that talking about suicide will encourage it. This view will be explored further in the section on suicide prevention methods.

In a similar vein, Seiden (1984) writes that rural isolation, particularly for adolescents, makes "networking and the formation of social support groups difficult to establish and maintain". He further maintains that rural adolescents who are interested in the Arts, especially acting and dancing, often have difficulty in finding a supportive peer group which at this age is vital to healthy social development. Seiden's conviction that rural isolation is a factor in adolescent suicidal behavior is confirmed because rural suicide statistics are generally higher than

urban statistics (Berman & Jobes, 1991; Office of the Chief Medical Examiner, Province of Alberta, 1990). Youth suicide statistics for Alberta for 1990 illustrate this urban/rural split:

> 10 - 14 years completed suicides (5.6/100,000 pop.)
> 1 suicide in Edmonton and Calgary
> 9 suicides in north and south rural Alberta
>
> 15-19 years completed suicides ((18.8/100,000 pop.)
> 11 suicides in Edmonton and Calgary
> 23 suicides in north and south rural Alberta
>
> Office of the Chief Medical Examiner, Province of Alberta

Clearly prevention programs must address this urban/rural split in completed suicides. Perhaps this could be done by providing community based mental health and social support services in rural areas.

To conclude this section of risk factors associated with adolescent suicidal behavior, Garland & Zigler (1993) observe:

> ... that the identified risk factors, although very useful from an epidemiological perspective, are not very accurate in predicting suicidal behavior at the individual level. ... Many young people will experience some, or many, of these risk factors and will never go on to commit suicide. (p. 171)

It is nevertheless beneficial to identify adolescents "at risk" even though they are termed "false positives" and are not in imminent danger of suicide (Garland & Zigler, 1993). These adolescents may benefit from some type of intervention. Mental health education, through our youth, can indirectly benefit their families and perhaps society as well.

Suicide Prevention Programs

Many of the risk factors discussed in the previous section will be more readily identified in youngsters if their peers, as well as, teachers and counsellors have some knowledge of what these factors are. For as Berman comments:

> ... the most effective long-term strategy in preventing adolescent suicide is in education for positive mental health. By teaching children cognitive problem-solving and coping skills, tools for living are provided for use even in adverse cirmcumstances. By giving parents opportunities to learn coping strategies and

> to encourage their use of available services, long-term supports may be provided, causing a rippling effect in family systems. (Berman, 1986; p. 276)

Berman supports the idea that the key to suicide prevention is in "education for positive mental health". This section deals with three types of prevention programs and education is the key ingredient in all of them. Since society mandates schools to educate the young, these institutions would seem to be the best place to provide information about suicide. A sceptic might question whether schools should be held responsible for correcting yet another of society's problems! Judie Smith (1991) however, believes that three reasons justify school involvement:

> (a) Schools have the responsibility of helping students develop into productive citizens who can contribute positively to society,
> (b) Schools have the responsibility to identify and attempt to resolve problems that interfere with the educational process, and
> (c) Schools have the opportunity and resources to identify and offer assistance to at-risk children. (Smith, 1991; p. 3-4)

Smith, concurring with Berman, states that "education is the key to prevention, and education is the mission of schools".

The three approaches to suicide prevention programs discussed in this section are thus aimed at children and adolescents attending schools. The first two methods have been used in schools, in North America over the last decade. The third is a recent innovative approach developed by Robert Felner, Professor of Public Policy, Social Welfare and Education at the University of Illinois. The methods, each of which will be discussed in turn, can be described as:

1. Suicide Awareness Program (Categorical)

> Suicide-specific interventions that educate youngsters about suicide; includes "training programs for teachers, counsellors, and sometimes parents to detect and refer adolescents at risk for suicide or mental illness to more in-depth services in the school or community". (Vince & Hamrick, 1990; p. 88).

2. Comprehensive Primary Prevention Program (Non-categorical)

> A broad based program with a greater emphasis on primary prevention and skill building from K-12 in a school health education curriculum. (Vince & Hamrick,

1990; p. 88) The concept of including a unit on Death Education within the health curriculum will also be presented.

3. School Transitional Environment Project (S.T.E.P.)

The objective of this program is to bring an understanding of the role that environmental settings and developmental transitions have in influencing risk and vulnerability to adolescent suicidal behavior and the importance of creating healthy, developmentally enhancing environments, as a major element in school based suicide prevention programs. (Robert Felner, 1993)

Suicide Awareness Programs (Categorical)

For Adolescents:

A recurring theme found in the literature on adolescent suicide is the importance of providing factual information about the myths and warning signs of suicidal behavior. Many experts believe that teenage suicidal behavior can be reduced if we overcome the idea that discussing this subject will encourage the action (Dyck, 1991; Tierney et al., 1990; Leenaars & Wenckstern, 1990; Ross, 1985). Most researchers agree that a failure to discuss suicidal behavior gives suicide our tacit approval and may even glamorize it (Giffen, 1983; McBrien, 1983; Garner, 1985). Klagsburn (1976) succinctly addressed the issue: "I do not believe that young people will be incited to suicidal behavior by hearing about it, but I do firmly believe that they will continue to be prevented from helping themselves and others by being falsely 'protected' from the subject."

Vince & Hamrick (1990) note that the majority of suicide prevention programs in North America appear to be categorical or suicide-specific interventions. In addition, most programs offer secondary prevention, that is; help to the individual to prevent further harm or to prevent involvement of other students (Vince & Hamrick, 1990).

There are two aspects of categorical interventions: 1) classroom instruction for students and 2) training programs for teachers, counsellors and parents. According to Garland and Zigler (1993) the main goals of the categorical type of program are "(a) to raise awareness of the

problem of adolescent suicide, (b) to train participants to identify adolescents at risk for suicide, and (c) to educate participants about community mental health resources and referral techniques." The average length of instruction time is approximately two hours. The majority of suicide prevention programs are aimed at students in grades nine through eleven. The content of most categorical interventions includes information on the prevalence of suicide in the relevant age group, a list of warning signs (most emphasize that stress and not mental illness often leads to suicide), the availability of mental health resources in the school and community, and a discussion of the students' role in identifying and helping a suicidal friend or classmate. Some programs also include information on symptoms of depression, stress reduction techniques, and problem-solving skills training.

Areas needing further research in categorical programs. In reviewing various classroom based (categorical) prevention programs both Vince & Hamrick (1990) and Garland & Zigler (1993) feel that a lack of systematic evaluative data is a major shortcoming of most presentations. Information about the impact of programs on general knowledge about suicide and their effectiveness in changing behavior is essential. Accurate empirical data are needed to measure changes in self-esteem, levels of depression/anxiety, reduction in attempts, detection of youngsters at risk and referral rates, and youngster's ability to seek help and knowledge of appropriate mental health agencies (Vince & Hamrick, 1990).

Cause de-stigmatization. There are other areas that warrant continued study. For example, research reviewed by Garland & Zigler (1993) indicates that most prevention programs present suicide as the result of extreme interpersonal or psychosocial stress and the more common belief that suicide is caused by mental illness is denied or de-emphasized. The rationale behind a stress model of suicide is the hope that this type of emphasis will encourage young people to identify themselves as "at risk" and in need of help (Garland & Zigler (1993). However, other researchers believe that only a small percentage of these suicides are the result of psychotic

behavior or a major depressive disorder (Shaffer & Gould, 1987; Domino, 1991). Even Shaffer has qualms about downplaying the mental illness aspect of youth suicide as he feels this may lead the adolescent to view suicide as a romantic response to normal adolescent stress and thus reduce potentially protective taboos. Improved research is needed into this issue of "cause de-stigmatization" to give a more accurate picture of the precursors of adolescent suicide.

Classroom discussion of suicide must provide clear and current information on where youngsters may go for help. Vince & Hamrick (1990) encourage programs to offer students one on one counselling with a professional counsellor, particularly when the student feels more preoccupied with suicide after the classroom presentation.

Garland & Zigler (1993) feel that classroom presentations often overlook or fail to reach those youngsters most at risk, for example, school drop-outs and runaways. They argue that students regularly attending school are not the high risk group. In fact, Hawton (1986) writes that some youngsters were absent from school prior to their suicidal act. They believe that prevention methods must be based on data that accurately identifies youngsters at risk who can be targeted for personal interventions (Garland & Zigler, 1993).

Peer confidentiality. Vince & Hamrick (1990) report research that indicates only 18 percent of students queried would find it "easy or very easy" to tell a teacher, school counsellor or family member that a friend was considering suicide. Regrettably, Ross writes that,

> some of the very qualities that make peers the confidants of choice also make them dangerously inadequate as counsellors and rescuers. Adolescent's sacred commitment to keep a confidence, their disinclination — or inability — to actively intervene, and their lack of knowledge regarding what could or should be done makes the awesome responsibility that may be imposed upon them an uncertain undertaking at best. (Ross, 1985; p. 150)

However, her research does offer some hope, for although adolescents are often reluctant rescuers they are keen to help and want only guidance as to the best approach to follow.

Finally, Ross believes

> ... that the prevalence of teenage depression, the suicidal impulses that often accompany it, and the teenager's preference for peer confidants indicate a need for prevention programs which educate adolescents both as potential victims and potential rescuers. (Ross, 1985; p. 151)

As well as educating youngsters, Ross (1985) advocates promoting programs for "gatekeepers of the young (the potential rescuers) to mobilize them as key identifiers" of youth at risk for suicidal behavior. The next section will discuss the information needed in suicide awareness programs for adults; particularly those in daily contact with adolescents.

Suicide Awareness Programs (Categorical)

For Adults:

Educating teachers and counsellors about the warning signs associated with suicidal behavior and the appropriate community mental health services available to adolescents appears to lessen the dangers of social imitation found in programs directed primarily to adolescents (Garland & Zigler, 1993). Accurately informed school personnel are not only the first, but may be the best, at early identification of youngsters at risk for suicidal behavior. Research findings indicate that teachers and counsellors are usually already aware of and are definitely capable of identifying those students who display symptoms of depression and suicidality (Ross, 1985; Vince & Hamrick, 1990). These symptom lists or "Warning signs" associated with suicidal behavior are generally brief and emphasize a recent onset of depression, frequent mood changes, difficulty in concentrating, decreased sociability, drug and alcohol abuse, giving away possessions and suicidal threats (Vince & Hamrick, 1990). Recent research findings suggest that some suicide completers had displayed longstanding behavior and school problems (Shaffer, et al.; 1990). Alberta Education (1987) suggested that teachers do the following with a suspected "at risk" youngster:

LOOK: for symptoms of depression and indications of hopelessness and helplessness.

LISTEN: for suicide threats and words of warning: "I wish I were dead; I have nothing to live for!"

WATCH: for despairing actions and signals of loneliness; being socially withdrawn and isolated.

Proper training into these warning signs of suicide can provide school faculty with the confidence to refer troubled youngsters to appropriate mental health agencies and to continue to "follow up" with these teens. As was written previously, followup treatment, particularly vital in suicidal attempt situations, is often not carried out.

Evaluative research on prevention programs aimed at school personnel shows them to be effective. Although their knowledge about treatment resources and the facts and myths associated with suicidal behavior increased, many teachers and counsellors felt it would be useful to receive specific guidance on how to refer youngsters to outside community health agencies (Vince & Hamrick, 1990). Strengthening the contact between schools and community mental health agencies would facilitate implementation of this kind of guidance program. An easily accessible support network is the result of a strong bond between the school and community health agencies. Close ties between school and community agencies might also strengthen the tie between the school and home. Education about suicide prevention is important for all adults, particularly parents, who come in contact with adolescents. Through the school or community agency the suicide prevention program could offer the same factual information as presented to educators, but also include the goal of improving lines of communication between parents and teens. Educating the parents, coaches, employers and relatives of adolescents must be a major component of any suicide prevention program for this age group. Educating parents, in particular, provides them with a better understanding of adolescent problem behavior and level of development and allows parents to respond in appropriate rather than punitive ways.

Garland & Zigler (1993) propose teaching about suicide to mental health care providers; particularly those who work with youngsters in youth emergency shelters and detention facilities.

Their research review found that programs developed for these settings are not only successful but reach youth who are not attending school.

Finally, Garland & Zigler (1993) suggest two other areas of suicide prevention education. The first area involves the issue of restricting access to means of suicide, mainly firearms. Firearms, as we have seen, are the preferred method of choice in suicide in adolescent males. Since strict gun control laws (particularly in the United States) are a long range goal in suicide prevention, Garland & Zigler (1993) advocate immediate public awareness campaigns about the importance of storing guns and ammunition separately and securely.

The second area involves educating the media about the increased prevalence of contagion (especially among adolescents) following media publicity about suicides (Garland & Zigler, 1993). They feel that seeking the media's cooperation for less sensational publicity by presenting the media with sound empirical data about contagion effects is more beneficial than calling for complete censorship (Garland & Zigler, 1993).

Garland & Zigler (1993) conclude that the best method may be to reduce the prevalence of risk factors in the targeted population. The known risks for adolescent suicidal behavior are similar to other more prevalent social problems in this age group, such as; substance abuse (alcohol and drug addiction), teenage pregnancy, dropping out of school, and antisocial behavior. With this thought in mind we will turn our attention to the second approach to adolescent suicide prevention; Comprehensive Primary prevention programs (Non-categorical).

Comprehensive Primary Prevention Programs (Non-categorical)

> A broad based program with a greater emphasis on primary prevention and skill building from K - 12 in a school health education curriculum. (Vince & Hamrick; p. 88)

One of the goals of the American Association of Suicidology as stated in 1989 was to:

> develop school prevention programs, not only to promote more effective identification and intervention in suicidal and self-harmful behaviors, but to teach

> youngsters how to cope more effectively with stress, loss, rejection, and isolation. (Smith, 1991; p. 13)

Early identification of children at risk and the teaching of life skills beginning in kindergarten, which, at least in theory, results in helping youngsters develop sound mental health, is considered one approach in the prevention of suicidal behavior. We can reduce the anxieties that encourage suicidal behavior by enhancing the youngster's ability to cope with life's pressures (Dyck, 1990). Many researchers believe that rather than teach the topic of suicide directly to adolescents in schools, a better prevention strategy is to have a comprehensive school health curriculum. Beginning in kindergarten, a program of this kind teaches basic skills to use with common psychosocial problems, for example; in coping, problem solving, interpersonal/generational communication and conflict resolution and in building self-esteem (Vince & Hamrick, 1990). A school health curriculum has relevance for all children and still provides teachers and counsellors the opportunity to identify youngsters at risk. Suicide is rare among children and adolescents, other social ills, such as; substance abuse, teen pregnancy, dropping out of school, physical and sexual abuse and emotional neglect are far more common (and carry far greater significance to society). Therefore, broad-based primary prevention can help more youngsters cope with life stresses whether or not they suffer a severe social disorder. In addition, having a different session for the prevention of each social ill (suicide, sexually transmitted diseases, AIDS, substance abuse, etcetera) is recoginized by most educators as costly and ineffectual. This is a valid criticism because these programs do not remove the underlying adverse life conditions and dysfunctions from the lives of the youngsters for whom they are designed.

Primary prevention appears to have several related functions. Overholser, Evans, & Spirito (1990) write that primary prevention serves two important functions: 1) "providing life skills training, and 2) improving social support networks." As was referred to in the section on risk factors associated with adolescent suicidal behavior; social support networks — vital for

healthy social and mental development, are particularly necessary in relieving isolation for teens in rural areas. In a similar vein, Dyck (1990) recommends that primary prevention programs reflect social policy based on these two assumptions:

> 1. Personal competence and adaptive abilities, as reflected in good social problem-solving and social living skills, will reduce the likelihood of suicide being the behavior of choice in response to psycho-social stressors.
>
> 2. Social conditions that facilitate the development of environments in which young people have meaningful roles, and promote feelings of self-worth will contribute to the reduction of the youth suicide rate. (Dyck, 1990; p. 130)

Dyck's (1990) approach focuses on promoting primary prevention strategies in the early social environment of youngsters within the context of their families, schools and communities. The effect of primary prevention within each of these areas will be discussed briefly with an emphasis on methods most effective in schools.

Family. In the discussion of risk factors associated with adolescent suicidal behavior, it was apparent that the family situation, particularly the parents behavior, can either enhance or hinder the youngster's psychosocial development. The intention of Primary Prevention is to forestall the development of future social maladjustment. Obviously then, the place to start is with families in the context of parenting skill information particularly for first time parents (Dyck, 1990). Through educational opportunities:

> ... parents could learn what to expect developmentally and behaviorally in children at different stages; how to develop and maintain relationships with children; how to teach social problem-solving (Shure & Spivack, 1975) and goal-setting skills to young children through modelling, play, and discipline; and how to create a family environment that is conducive to both physical and psychological health. (Dyck, 1990; p. 130)

Early education would involve the coordination and cooperation of parenting and life skills courses already found in community mental health and well baby clinics, daycare, schools and after school care. It is the community working together that can provide the social support necessary to "at risk" families that will encourage positive mental growth and realistic problem

solving strategies. (It is my contention that through this kind of prevention the social disorders that often appear in adolescence can be decreased.)

Schools. Schools are centres of communication and purveyors of information — first to the students and then through them to parents and the community. The environment of a school is also part of its communication system, for it sets the tone for how the participant's behaviors are perceived and acknowledged. A school environment that is unfriendly and cold will create isolation and distance, whereas a school that is open and friendly is seen as welcoming and accepting. Berkovitz (1987) believes that the school atmosphere is an important factor in the prevention of suicidal behavior in youngsters who are emotionally vulnerable. Students who perceive teachers and staff of their school as approachable and caring are far more likely to seek their help in times of stress. For Dyck indicates:

> Educators need to be encouraged to give greater emphasis to this creation of a school environment that facilitates social support, provides positive learning experiences, encourages a sense of mastery, and builds self esteem. Such a climate would benefit all children, and especially those who might be at risk for suicide. (Dyck, 1990; p. 131)

What is the role of the school in a broad-based primary prevention program? According to Vince & Hamrick (1990), these programs usually offer an ongoing developmentally sequential health curriculum from kindergarten to grade 12. Healthful life styles are also promoted through school policies that discourage smoking and food services that offer wholesome food.

The main purpose of primary prevention programs is to promote positive problem-solving behaviors. Educators can accomplish this task in two ways: 1) by modelling this behavior themselves and, 2) by directly teaching students these skills. Community psychology literature supports the view that "teaching young people to manage stress and *to* cope with adversity and depression" enables them to choose alternative solutions other than suicide and, in addition, creates a positive and supportive school environment (Vince & Hamrick, 1990). The work of Spivack and Shure (1975, 1985) provides evidence that youngsters in all grades can learn to

varying degrees; means-end thinking, to see viable alternatives, and to identify the consequences of their actions (Dyck, 1990) Vince & Hamrick, 1990). The children in their studies also demonstrated improved skill attainment and behavioral adjustment. There were other positive side effects for the children: they exhibited increased "concern for others, higher levels of autonomy, and an increased ability to take initiative." (Shure & Spivack, 1975). Spivack and Shure (1985) identified skills needed by youngsters to think through problems. The skills, referred to by them as Interpersonal Cognitive Problem Solving (ICPS) include "consequential thinking, causal thinking, and cognitive sensitivity to the possible interpersonal nature of the problem involving another person." (Vince & Hamrick, 1990). As we learned in chapter three of this thesis, suicidal adolescents are often unable to see alternative solutions to their problems because their thinking becomes rigid and narrow. Possessing ICPS skills could prove useful in the prevention of early adolescent suicide. Although there has been no specific study done on the effects of ICPS on suicide prevention, research reviewed by Vince & Hamrick (1990) suggests that ICPS helped alleviate some of the stress encountered by youngsters in the transition from grade 6 to junior high school. Youngsters trained in ICPS were less likely to experience serious mental health problems ranging from "becoming involved with smoking or drinking to issues [*relative*] to coping with peer pressure, academic requirements, and the logistics of being in a large, unfamiliar school" (Vince & Hamrick, 1990). Since further discussion of this type of program is beyond the scope of this thesis, those seeking more information about implementing comprehensive school health education programs are directed to Vince & Hamrick (1990; p 97) and section II of Leenaars and Wenckstern (1991; p. 41-122).

Schools and Adolescent Developmental Issues

Age and developmental level of the students must be addressed in any suicide prevention program. The developmental issues associated with adolescence are of particular concern. Adolescence, a period of transition and disequilibrium between childhood and adulthood, requires

sensitive interventions that take into account the adolescent's varied cognitive level, their struggle from dependence to autonomy from adults, and the influence of the peer group (Kasdin, 1993). As well, the incredible difference between an adolescent starting grade 7 and the grade 12 graduate must also be acknowledged in the prevention curriculum. As Kalafat (1990) writes:

> ... different issues must be addressed for 7th grade students who may not yet grasp the permanence of death; or for high school seniors, who may need to learn how to find help on a college campus (p. 367).

Reiterating the importance of developmental issues, Kalafat (1990) says the material must reflect the adolescent's need for autonomy which makes it difficult for them to seek help from adults; and the influence of peer relationships which often prevents them from betraying a confidence. In conclusion, Kasdin (1993) states that for any intervention program: "...research can help identify ways to direct youth and determine peer, familial, and social supports to promote mental health" (p. 139).

Community. Because prevention cannot be the total responsibility of the school, community involvement is a necessity. An entire community has an obligation to assuage the troubles of its less fortunate constituents. Cooperation between community agencies increases the resource base available when a crisis occurs, whether it is an adolescent suicide or a natural disaster. Although the suicide victim might attend a particular school, its impact will have a rippling affect in the community. For example, the students immediately affected may have siblings and friends who attend other schools where their reactions will also have an impact. Also in cities where there are open boundaries in school attendance, a suicide in one school will be felt in the homes of many communities. Cooperation and coordination of services between schools and community agencies can also help prevent the spread of false information and reduce suicide contagion effects.

Communities through the coordinated efforts of business, health agencies and schools can set social policy to address the high jobless rate among today's youth. Hopelessness about future

job prospects can influence youngsters to drop out of school and to turn to substance abuse, a major component of adolescent suicide.

The interaction of the family, school, business, and health agencies within the community can be the means to empower youngsters by providing them with opportunities to define their lives and their environment (Dyck, 1990). Youngsters who are given more responsibility in the decisions affecting their lives within their families, schools and community will feel enfranchised and hopeful about their future role in that society. These youngsters may be less inclined to become involved in serious mental health problems and thus they will be an asset to and not a burden on their community.

Death Education. A subject often neglected in the field of suicidology is death education. Because discussion of this topic is taboo in schools, as sex education was in the past, many otherwise reasonable adolescents have little or distorted information about death. For example, in chapter two of this thesis we learned that in a study of six hundred 13- to 16-year olds, 25% believed that death was not final (McIntire, et al., 1972). Pfeffer's (1986) research demonstrated that suicidal children "... believe that death is a temporary, pleasant state that will relieve all tensions." Many early adolescents are only beginning to understand the universality and finality of death. For some of these youngsters a feeling of personal "invincibility" exists protecting them from disasters that strike others, such as old age, death, pregnancy and drug addiction. This phenomenon is part of what Elkind called the "personal fable". For these reasons including a segment in the health curriculum on death, dying and the grieving process may prove to be a deterrent to early adolescent suicide. Death education for adolescents should include, 1) information, to replace fears, superstitions and misinformation associated with the concept of death; 2) self-awareness, to help youngsters have an accurate sense of their own fallibility; and 3) skills for helping others, especially their peers, to cope with feelings in times of grief and

death (Reeves & Knowles, 1979; Rosenthal, 1986). In conclusion as Pfeffer (1985; p. 41) points out: "Knowing that death is final may be a strong deterrent to suicidal acting out."

School Transitional Environment Project (S.T.E.P)

> S.T.E.P. seeks to reduce the difficulty of the transitional tasks and to increase coping resources available to students by modifying specific elements in the ecology of the school setting. (Felner & Adan, 1989; p. 114)

Chapter three of this thesis discussed the physical, social, and cognitive changes that typically occur in early adolescence. Not only do early adolescents cope with these pubertal changes but many experience the school transition from elementary (grade 6) to junior high (grade 7). This environmental transition is often as stressful as the developmental transition these youngsters are experiencing. Most educators acknowledge that moving from the structured, dependent atmosphere of elementary school to the independence and apparent freedom of junior high creates adjustment problems for youngsters, particularly those already "at risk". This critical transition point in a youngster's life is often accompanied by an increase in behavior problems, absenteeism, a decrease in academic performance and lowering of self-esteem. At risk early adolescents who experience a negative adjustment to junior high are susceptible to substance abuse, delinquency, and other social disorders (Felner & Adan, 1989). Research has shown that lower grades and chronic absenteeism are consistently related to later school failure and early dropout (U.S. Dept. of Health, Education, & Welfare, 1975).

Normal school transitions do not have to produce negative outcomes in the children who experience them. As Felner & Adan write: "Both personal characteristics [of children] and attributes of the school setting [the junior high] can influence the extent to which negative outcomes follow transitions" (Felner & Adan, 1989; p. 112). The impact of transitional points in a youngster's life depends on the developmental and social tasks encountered during these times and how they are mastered. The difficulty experienced in mastery of these tasks reflects both the youngster's personal history and current coping skills and more importantly the

environmental setting in which the transition occurs (Felner & Adan, 1989). For as we mentioned earlier in this chapter some suicidal youngsters exhibit profound anxiety and appear extremely vulnerable during times of change and dislocation (Shaffer, 1988). Felner and Adan (1989) found in their research that socially and economically disadvantaged youngsters with co-occurring developmental transitions, acute life stresses, and little family support academically were more prone to suffer school transition problems than students with similar developmental issues but fewer life stresses.

Just as the personal characteristics of the youngster affect their experience during transition times, so do individual school environments influence the level of risk attached to transitions. The "characteristics and regularities of the school setting that the student enters may have a profound effect on the levels of risk that students experience when they enter the new setting." (Felner, et al., 1993). For example, the transition risk level is much less when one small elementary school feeds into a small junior high than when several large elementary schools send students to one even larger junior high school. Felner and his colleagues at the University of Illinois developed, implemented, and researched the School Transitional Environment Project (S.T.E.P.) to lessen the negative impact and transition risk for grade seven students at large junior high schools. (This program can also be used by grade 10 students in the transition from junior to senior high school.)

Initially designed for students from low socioeconomic, minority backgrounds, S.T.E.P. can benefit all students at risk during the transition year. Risk factors, which are commonly associated with academic difficulties include poverty, low levels of personal coping skills, minimal family support, and other life stresses and transitions, ie., entering puberty (Felner & Adan, 1989).

The purposes of S.T.E.P. are two fold: "...to reduce the difficulty of the transitional tasks and to increase coping resources available to students..." (Felner & Adan, 1989; p. 114).

S.T.E.P. accomplishes this two fold purpose by modifying two key elements of the school environment. According to Felner and Adan (1989), these two elements are: 1) reorganizing the social/physical setting the 7th grade student encounters to reduce instability and "to facilitate reestablishment of a stable peer support system." and 2) "to restructure the roles of homeroom teachers and guidance personnel."

To achieve the reorganization of the social and physical setting grade seven pupils are first assigned to a homeroom and attend the four core subject classes with these classmates. Being with the same group of youngsters for most of the school day encourages the re-development of a peer support system. Secondly, all grade seven classrooms are located close to each other in the school, either in the same hallway (wing) or on the same floor. This reduces travel time between classes, lessens the "overwhelming" nature of a large school by reducing the perception that the school is a formidable and unmanageable place, and encourages same age socialization before and after school and between classes. Where there is a need for optional courses, ability groupings and economic use of school facilities, mixing subsets of grade seven students is feasible.

To accomplish the second element, the role of the homeroom teacher is redefined. In S.T.E.P. the homeroom teacher, usually a core subject teacher too, becomes "... the primary administrative/counselling link between the students, their parents, and the rest of the school." (Felner and Adan, 1989). In their role as teacher/advisor they offer administrative advice (in choosing classes, dealing with personal/school problems) and contact the family concerning student unexplained absences. In addition, all grade seven level teachers meet twice weekly to discuss those students identified as needing more help or support. According to Felner, et al., (1993) there are four parts to the goal of changing the homeroom teacher's role:

> 1) to make the transitional task of acquiring and reorganizing formal support less difficult and to increase the amount of support students receive and perceive as being available from school staff; 2) to reduce the difficulty with which students

> can gain access to important information about school rules, expectations, and regularities; 3) to increase student's sense of accountability and belongingness, and to reduce their sense of anonymity; and 4) to increase the extent to which teachers are familiar with students and reduce the overload teachers often experience in gaining familiarity with large numbers of entering students. (p. 10)

Felner & Adan (1989) see two areas where S.T.E.P. is inappropriate. In the first place, S.T.E.P. is not designed for students who have failed 1 or 2 grade levels or who demonstrate major behavioral difficulties. Although a more supportive school atmosphere would be of benefit to these youngsters. Secondly, S.T.E.P. is less necessary in combined elementary-junior high schools or where the number of incoming students is less than 125.

The advantage in implementing S.T.E.P. seen by Felner & Adan (1989) are the program's low cost in terms of teacher retraining time (a maximum of two days) and school resources (a simple reallocation of classrooms). In addition, a S.T.E.P. prevention program does not disrupt classroom time or teacher's schedules as does a Specific Suicide Awareness program. Finally, research recently completed by Felner and his colleagues illustrates the major advantage of using S.T.E.P. in schools. They found that over a four year period students in a comparison (control) traditional school showed a 43% dropout rate (Felner, et al., 1993). By comparison, four years after their initial experience, S.T.E.P. students had only a 24% dropout rate. By helping to reduce the school dropout rate, S.T.E.P. offers policy makers an opportunity to reduce more serious future social problems, such as, delinquency and unemployment.

Because S.T.E.P. improves teacher efficiency, job satisfaction and requires minimal training to carry out, it has the potential to be implemented consistently. Consistent implementation is not so easily accomplished with specific suicide awareness programs or particularly touchy units in a health curriculum. Many teachers may feel inadequate in discussing certain subjects with their students.

For Felner and his colleagues S.T.E.P. confirms that "systematic environmental changes can be used effectively for prevention purposes." (Felner, et al., 1993). They also believe that

prevention programs that focus on modification of existing school practices may be more beneficial than those that only focus on individual needs. In modifying two main elements of a school environment, 1) the social and physical setting and 2) the homeroom teacher's role, S.T.E.P. seeks to provide safety, stability, and security to youngsters who must cope with the cognitive, social, and physical changes of puberty during early adolescence and the transition to junior high school.

Because S.T.E.P. focuses primarily on change in the environment and on change in the individual to a lesser extent, it does not rely on a brilliant professional to present the material. However the two other types of suicide prevention programs — the specific suicide awareness class, and the comprehensive broad based health curriculum — both depend on the expertise and charisma of the person presenting the material to sometimes disinterested students. Most educators would agree that the stronger the connection between the presenter of information and the audience, the greater the learning. Finally, it is important to remember the developmental level of the audience receiving the information. Particularly in early adolescence, the changing cognitive levels of these youngsters means that some will understand the information some of the time but not all will understand the information all of the time.

CHAPTER SIX CONCLUSION

Cognition: The Link between Early Adolescence and Suicidal Behavior

Shneidman, a well known expert on the issue of suicide states that, "... suicide is not random; it never occurs pointlessly or without purpose." (1987, p. 58). I agree with him and other researchers that some youngsters see suicide as the way to escape from a distressing situation (Hawton, 1986; Hicks, 1990; Pfeffer, 1990; Kasden, 1993). I believe that these youngsters use a limited and narrow style of cognition that leads them to the conclusion that suicide is the only solution to their (for them) unique and unbearable problems. I also believe that a faulty concept of death contributes to their perception that suicide will alleviate their distress. All adults who interact regularly with early adolescents must become aware of the physical and verbal signs associated with this rigid mode of thinking and by intervening directly with a distressed youngster perhaps prevent the occurrence of suicidal behavior.

Throughout this thesis we have looked at many aspects associated with suicidal behavior and early adolescence. Because every youngster is unique, early adolescent suicidal behavior remains a complicated issue subject to many interpretations. However there are some generalizations and even conclusions to be drawn concerning this topic. My thesis proposes an explanation of early adolescent suicide. I believe that the changes in cognition which occur in early adolescence provide a link between suicidal behavior and this developmental stage. I further propose that these cognitive changes often characterized as adolescent egocentrism and described by David Elkind (1981) as the early adolescent cognitive concepts of the personal fable ("I will not die because of my personal uniqueness).") and the imaginary audience ("... a hoped for reaction to one's death.") are contributory factors in some early adolescent suicidal behavior.

Conclusions Drawn From Chapter One

Incidence of Early Adolescent Suicide

In this chapter I presented an analysis of statistics associated with suicidal behavior in youngsters 10 to 14 years of age. Suicide is currently the third leading cause of death among North American children and the second cause of death for adolescents. For both children and adolescents the major cause of death is accidents. Some of these accidental deaths are believed to be suicides. Suicide researchers indicate that many accidental deaths among children, for example: being struck by a car, falling from a window or balcony, swallowing pills or poison are likely suicides. Furthermore, accidents involving one male teenager, the presence of alcohol, and a single car crash are often suicides. The incidence of suicide among 10 to 14 year olds has tripled in the last thirty years, and has doubled among 15 - 19 year olds. Even more startling is that in the United States, adolescence represents the only age group where the mortality rate has continued to increase. In fact, 75% of all deaths among adolescents are due to three major causes; accidents, suicide, and homicide. These facts are thought to be representative of Canadian adolescents as well. Generally speaking, statistics on adolescent suicide in North America are considered to be low estimates of the true numbers.

Although completed suicide, while increasing, is rare among 10 to 14 year olds, suicidal behavior is not rare. (Suicidal behavior includes suicide attempts, suicide threats, and ideation.) Suicide attempts among children and early adolescents are often ignored because adults fail to recognize and believe this demonstration of profound despair and hopelessness.

I believe that suicidal behavior in latency-age children is a complex issue. Dividing suicidal behavior into distinct types is difficult and may prevent adequate understanding of the seriousness of the issue. Through extensive research, Pfeffer (1984, p. 267) concludes that suicidal behavior in early adolescence should be viewed as a "continuous spectrum of behavior ranging from non-suicidal, to suicidal ideas, suicidal threats, suicidal attempts and completed suicides". She believes that we should not distinguish differences in severity between these

aspects of suicidal behavior. To do so lessens the presumption that suicidal behavior in children and early adolescents is a genuine problem.

The following discussion will demonstrate the magnitude of the problem of suicidal behavior among 10 to 14 year olds. We will look at ratios of suicide attempts versus completions and how age and gender influence these ratios. In 1980, the Committee on Adolescence of the American Academy of Pediatrics presented evidence that for every completed adolescent suicide the attempted suicide estimates ranged from 50 to 200 attempts per completed suicide. To illustrate the significance of these results for adolescents, within the general population the ratio of attempts versus completions is reported as being less than 10 attempts for one completed suicide.

Age is a factor when comparing suicide attempts with completed suicides. According to Stillion, and his colleagues (1989), the ratio of suicide attempts per completed suicides is greater for children and early adolescents than for older adolescents and adults. Peck (1984) confirms this age differential by stating that for younger adolescents the ratio of attempted suicide per completed suicide may be as high as 15:1 or 50:1, where as for the general population and the elderly the above ratio is as low as 5:1 or 10:1.

Gender also plays a role in the comparison of suicide attempts versus completed suicides. Some well documented research suggests that adolescent boys complete suicide four times (4x) as often as girls (rate of 18.0 vs. 4.4) (Berman & Jobes, 1991). Amazingly, this sex ratio is reversed when attempted suicide occurs during adolescence. Adolescent girls attempt suicide three times (3x) more often than boys of the same age. There are two explanations for this gender difference in completed versus attempted suicide. Choice of suicide method, whether guns (male) or pills (female) is the primary explanation for the gender difference. The second explanation concerns case-finding methods for suicide research. Suicide research studies collect data mainly from health and mental health facilities which are more often frequented by females.

Garland and Zigler (1993) suggest that gender differences would decrease if suicide research data collection was expanded to include criminal detention facilities where suicide attempts are quite common among the predominately male population.

American statistics indicate that suicide is relatively rare for those under 19 years of age, approximately 2,000 deaths annually in the U.S.A., however there may be as many as 2 million youths who engage in suicidal behavior each year (Smith & Crawford, 1986). There are similar findings for Canada. Because educators and health care professionals consider "at risk" those youngsters who express any level of suicidal intent, ideation, or action, early adolescent suicidal behavior is of particular concern. Recognizing this concern, within the last six years, both Canada and the United States conducted, for the first time, national surveys of particular adolescent age groups to assess attitudes towards certain health and mental health issues. In fact, a study of 13 and 15 year olds conducted by the U.S. Centers for Disease Control in 1987 to assess adolescents at risk for several important health problems found that 67% of these two age groups had at some time seriously considered committing suicide. As well, 29% of the 13 and 15 year old respondents reported they had actually tried to injure themselves in a way that could have resulted in their death (Centers for Disease Control, 1989).

A more recent study (June, 1993) of mainstream Canadian youth aged 13 to 18 years conducted by the Canadian Psychiatric Association (C.P.A.) assessed these youngsters attitudes and experiences with respect to their own mental health and mental illness in general. In this Canadian study 19% of those interviewed revealed that they had thoughts about suicide and 22% of this 19% had purposefully attempted suicide. Although 58% of the Canadian youth aged 13 to 18 surveyed feel they cope well with life's stresses, fully 23% said that they often feel they might have a serious emotional problem.

A frightening aspect of both the U.S. and Canadian studies is not only the high percentage of youngsters who consider or engage in suicidal behavior but the fact that most do

not seek or receive any treatment for this cry for help. Berman (1986) found of the estimated two million U.S. youngsters who make a non-fatal suicide attempt only about one in eight of these attempts was judged sufficiently serious to warrant treatment. The 1993, C.P.A. youth survey uncovered a similar conclusion. Dr. Ian Manion, who helped design and interpret the C.P.A. Canadian Youth Mental Health and Illness Survey, expressed dismay when he reported that 33% of the youngsters surveyed, who had thought about or attempted suicide, never told anyone about these thoughts or actions. Of the 67% of the youngsters who did talk to someone, most; 81% talked with a friend and not a mental health care professional. (Interestingly, the study also found that only one in six Canadian children and adolescents with mental health problems receive professional care.) Although many people think about suicide at one time or another in their lives, it is to the young people who act upon these thoughts that adults must offer immediate support. Most adolescents prefer to discuss their problems with their peers which usually is like the blind leading the blind. Also, if as I believe, an adolescent suicide attempt is a cry for help and not a true death wish, then it is imperative for parents, educators, and other adults to encourage adolescents to feel comfortable in seeking help from them and from mental health care professionals. We must also ensure that when these youngsters seek our assistance that adequate help and sufficient treatment are readily available. Obviously educators and adults interested in young people must become more aware of the extent of adolescent suicidal behavior. Armed with this knowledge and willingness to offer help the huge numbers of adolescents who attempt or think about suicide could be reduced.

We will now look briefly at some methodological factors that contribute to the belief that adolescent suicide statistics portray a low estimate of the true numbers. Accurate statistics for this age group are difficult to obtain due to major methodological problems and some differences and other inconsistencies in data collection of violent death patterns.

In both Canada and the United States frequencies and rates of completed suicide vital to assessing potential suicidal behavior are collected on the basis of official death certificate information. In the U.S. many coroners offices are staffed by non-pathologist physicians or non-physician coroners whose training in the certification of suicidal death may be minimal or non existent (Berman, 1986). As well, considerable variability exists in the structure and operation of these offices both nationally and locally. As a result, national and local requirements as to what constitutes death by suicide may differ dramatically. In fact, once homicide has been ruled out, some jurisdictions require explicit evidence of suicidal intent (a suicide note). Since the presence of a note is rarely found in child and adolescent suicide cases, the unnatural death is classified an accident unless proven otherwise. For example, during a high speed chase of a stolen car, the police related that the driver lost control and crashed head on into a bridge abutment. The teenage male driver and the three passengers were killed instantly. Initial police investigation showed that the young driver had a history of school suspensions and problems with the law. Further inquiry revealed that the dead teenage driver had a history of depression and suicide attempts. In fact he had recently told his doctor that he would be dead before his next birthday, that he was going to drive into a concrete highway support and that he would "take out" others with him (Berman, 1986). However the death was classified "accidental occurring during the commission of a felony". This data misclassification due to non-standardized criteria for the certification of death by suicide is one of the major methodological problems encountered in collecting suicide statistics for adolescents.

The other major methodological problem occurs as a result of the stigma attached to labelling any unnatural death as suicide. Quite often families wish to disguise these deaths as accidental because of the social and religious taboos or for insurance purposes. As well, coroners particularly those who are appointed or elected, may feel pressured to save the family further social embarrassment and thus certify an adolescent suicide as an accidental death. It is difficult

to determine how many accidental deaths among adolescents may be disguised suicides. However, some suicidologists argue that large numbers of single vehicle accidents involving a single male driver who has been drinking and has had a fight with a significant other may be an impulsive suicide. Numerous suicidologists also believe that many unnatural deaths involving people with either high levels of blood alcohol, or significant traces of various narcotics, (as in the case of the actor River Phoenix) or who die from unwitnessed drownings or falls, may be suicides and not accidents.

There are several other inconsistencies and differences in data collection on adolescent suicide and suicidal behavior that lead to inaccurate statistics. A common problem in data analysis occurs when attributes of a clinical population are used to generalize outcomes for a non-clinical population. Sample populations used as control and experimental groups should be as similar in age, sex, and general background components as possible.

This raises another area of discrepancy in data collections. Inconsistencies often occur when comparing different age groups. How do we classify children by age? Are children all those under the age of 10 years, or under the age of 12 years? How do we classify the nine year old girl who has reached menarche and is entering puberty? Do we use the onset of puberty, which varies tremendously in both sexes as the line of demarkation for childhood? What are adolescents? This all encompassing term can include youngsters from 10 to 21 years (many developmentalists divide adolescence into early; 10 to 14 years, middle; 15 to 17 years, and late; 18 to 22 years age ranges). Obviously researches must strive to sample the same concise age groups whenever possible rather than use vague parameters, such as "children" or "adolescents".

Other inconsistencies in suicide data collection occur when comparisons are made between overlapping or different time ranges or different geographical regions. The cohort effect might influence data from within a thirty year span if the first 10 years are compared with the last 10 years. As well, comparing different geographical regions can also lead to inconsistencies in the

data. For example, the adolescent suicide rate is consistently higher in the Western and rural areas than in the Eastern urban parts of North America.

Finally, the availability of age specific subjects is the major limit on the number (precious few) and the accuracy of research studies on early adolescent suicide and suicidal behavior. This unavailability of subjects means that most research in this area either summarizes coroner's records (we have seen how this leads to inaccuracies) or utilizes psychological autopsies (with inaccuracies due to second hand information). In recent years, more researchers have been using prospective data collection and follow-up (Berman, 1986). One study (Motto, 1984) that used this type of research followed male adolescents known to be at risk for suicide (either because of their admission to hospital for their depressed state or a suicide attempt) over a seven year period. Those that committed suicide during this time span were compared to similar non-suicidal people on over 100 psychosocial and epidemiological variables using information collected during their hospital admission. Nine variables were found to show significant association with suicide. Although longitudinal studies are time consuming, this type of research could lend more accuracy to what factors and precipitants lead to suicidal behavior in early adolescence. We will look at what appears to be the most prevalent factors, precipitants, and myths associated with early adolescent suicide in the next section of this chapter.

In conclusion, regardless of the varying sample groups, differing collection methodologies and interpretation of data; problems common in the epidemiological analysis of youth suicide and suicidal behavior, the data shows that this issue is sufficiently severe to warrant our immediate attention.

Conclusions Drawn From Chapter Two

Suicidal Behavior is influenced by factors more varied than the desire to die.

The preceding discussion demonstrated the difficulty in collecting accurate suicide data for children and adolescents. Similar problems occur in gathering and establishing accurate data on

causal and precipitating factors common to early adolescent suicidal behavior. Although the identified risk factors are interesting from an epidemiological viewpoint, they still do not provide us with a consistent set of characteristics with which to identify and predict the early adolescent suicide completer. The infrequency of suicide in this age group, as well as limitations of generalizing risk factors derived from small clinical samples to large normal populations hamper prediction. Accurate prediction is also complicated in part due to the difficulty in obtaining large randomly selected groups of early adolescent suicide completers and to the fact that much of what we learn about this group has been generalized to them from the study of youth who attempt suicide.

Major differences exist between suicide completers and attempters. These differences create research problems when inferences are drawn from the completer group to the other. For example, there are differences in method between completed and attempted suicide. The most common methods for completed suicide, similar for both genders are first firearms, second hanging, and third poisoning (Garland & Zigler, 1993). In completed suicide males use guns and hanging more than females who prefer poisoning through gassing or drug ingestion. However, in suicide attempts the most common method is drug ingestion or overdose.

Gender differences account for the most important difference found between the ratios of completed versus attempted suicide. Female adolescent suicide attempters outnumber their male peers by an almost 4:1 ratio (Berman, 1986). This is almost an exact reversal of the role gender plays in completed suicide, where males outnumber females 4.7:1. These differences reflect method of choice as males generally use more aggressive methods (firearms, hanging) than females who use drug ingestion which often allows time for rescue.

Differences in method of choice may also reflect a complex interaction of cultural, biological, and interpersonal forces related to being either male or female. Researchers believe that certain personality characteristics, such as; aggression and impulsiveness put adolescent males

at greater risk for choosing more violent and consequently deadlier means of suicide (Garland & Zigler, 1993). Females on the other hand may choose less lethal means because of a generalized cultural belief that they are more docile and less violent than their male peers. It has also been suggested that females are more inclined to seek interpersonal support, particularly through close female relationships than their male counterparts. Females are also generally more willing than males to seek help from mental health professionals.

But the fact remains that adolescent females attempt suicide four times more than males. Clearly something is going on in the lives of these young girls to generate such behavior. Berman (1986) reports that there are two opposite types of adolescent female attempter. The first is the young girl who attempts suicide for the "cheap thrills" effect. Here the attempt is generally the culmination of a history of defiance, rebelliousness, sexual promiscuity and drug use (Berman, 1986). The second type, the exact reverse, involves emotional passivity, docility, and extreme social conformity (Berman, 1986). Underlying rage is the common factor in these contrasting types of suicide attempters. In the first, this rage is overtly demonstrated, while in the second, the rage is suppressed for fear of losing much needed parental love. Although these two types specifically refer to female adolescents, they could fit many adolescent boys who engage in suicidal behavior. For as we shall see in the next section on major predisposing factors in adolescent suicidology, probably the only certainty is that the victims share only a few commonalities.

Even with the diverse nature of adolescent suicidal behavior, I believe that there are three commonly occurring predisposing factors: family characteristics, feelings of hopelessness, and concept of death.

Family Characteristics — Early Life Stresses

Broken Homes

Research has demonstrated that early life stresses, particularly loss of a parent (or adult significant other), family turmoil, frequent change in school or living situation, and general social instability are all associated with increased risk for adolescent suicidal behavior. The loss of a parent (or adult significant other) through death, separation, or divorce resulting in a broken home is a major risk factor in studies of attempted suicide in children and adolescents. In fact the results of two recent studies, one in England and one in Ontario, confirm that suicidal children and adolescents came from broken homes with almost twice the frequency of a non-suicidal control group. Similarly, a 1970 United States study of twenty children aged 5 to 13 who attempted suicide found that 80% had suffered the loss of a significant other.

Relationships with Parents

Poor relationships with parents, school difficulties and girlfriend-boyfriend problems are other risk factors that can be attributed to instability in the home. One of the few studies which investigated 13 to 15 year-old suicidal adolescents found that 76% had disturbed relationships with their parents. One of the most cited precipitating factors in adolescent suicidal behavior is having a major conflict with one's parents prior to the attempt. Conflict with a parent of the opposite sex seems to be most prevalent. One study found that suicidal girls felt unable to discuss personal problems with their fathers. Actual conflict, as well as lack of parental warmth and caring common in difficult parental relationships are factors that influence suicidal behavior. Even so parental attitude may not always be the entire cause of the conflict with the child or teen because often the youngster's own personality difficulties contribute to interrelational problems.

However, parenting styles, are considered to have an impact on adolescent behavior. Current research suggests that within specific definition of types, a correlation exists between certain parenting styles, and adolescent conduct. For example, using Baumrind's (1990)

categorizations of parenting styles it was found that: authoritarian parents are too restrictive of emerging adolescent autonomy which is linked to lack of self confidence, ineffectual social interaction, and aggressive adolescent behavior; permissive parents, either highly involved or very uninvolved, place to few restrictions on their adolescents which encourages lack of self control and impulsiveness, and finally; authoritative parents who encourage adolescents to be independent within flexible mutually agreed upon boundaries often associated with social competence, self-reliance, and responsibility.

A link can be drawn between the adolescent, the risk of suicidal behavior, and the consequences of the three parenting styles. In the authoritarian style, the adolescent might see suicide as the only escape from an extreme prison-like existence and in the permissive style both lack of self control and impulsiveness have strong connections with suicidal behavior. Finally, authoritative parents, by encouraging mutual trust, understanding and respect provide their adolescents with a sense of competency and the knowledge that whatever difficulties the youngster might face their parents will always be there for them. An adolescent supported by this knowledge is well protected against the risk of suicide.

School Difficulties

Academic failure is associated with family transiency and frequent school changes. As they experience the normal cognitive, biological and social changes of puberty, early adolescents need stability in at least one aspect of their lives; either at home or in school. The early adolescent who lives in a dysfunctional home environment and also finds school academically and socially threatening; due often to frequent moves, is at increased risk for suicidal behavior. According to the research, school problems consist of poor academic achievement, a desire to drop out of school, and poor relationships with teachers and peers. Although many studies show that suicidal adolescents perform poorly in school, there is evidence that this may not be a result of low intelligence. In some cases the suicidal risk factors of underlying rage, low self esteem,

and helplessness are manifested in over achievement and rigid perfectionism. As well, school problems are rarely the direct cause of a suicide attempt, but are one part of pervasive interpersonal difficulties which lead to the adolescent's low self esteem, self doubt, and deep personal pain. Although researchers report that school problems (academic failure or being dropped from a school team) are precipitating factors in suicidal behavior, they agree that low self esteem and feeling of hopelessness are more potent influences (Hawton, 1986; Farberow, 1991).

Misperceptions at School

Pfeffer (1990) believes that an important factor in precipitating suicidal behavior arising from interpersonal problems is humiliation — "feelings of disgrace and public disparagement;" "a loss of a basic sense of one's worth." In early adolescence, self-awareness, in the form of self-consciousness, becomes particularly important. Erikson states that early adolescents, in trying to develop a clear, unified sense of self, are preoccupied with how they appear to others. This extreme preoccupation with the self, one's own reactions and others to this new emerging self, means that any slight, loss of a significant other, or embarrassing moment can assume mammoth significance. An event that might seem trivial to an adult can be devastating to an early adolescent. It is important to remember that for an adult, life's humiliations are seen from the perspective of lengthy life experience which helps to reduce their pain. However, for an adolescent who is suffering from chronic stress in their family and/or school life, the loss of academic or sports team status may become the "final straw" that leads to suicidal behavior.

Problems with Boyfriends or Girlfriends

My research discussion in chapter two shows that the ending of a relationship with a girlfriend or boyfriend may precipitate adolescent suicidal behavior. Because early adolescents invest so much of their own ego in a relationship its ending is perceived as a rejection of their own being. As we saw in the previous section, early adolescents lack of life experience facilitates

the belief that their "broken love" is the only relationship they will ever have. Obviously then such breakups are extremely painful and the suicide attempt is used to end the pain or to manipulate the return of the girlfriend or boyfriend. In one study of female self-poisoners, problems with their boyfriend were found to be a precipitating factor in 52% of their suicide attempts. This high rate may be due to the fact that girls, far more than boys, attempt suicide because of relationship problems with members of the opposite sex. Girls' relationship problems appear to have more devastating consequences particularly for girls from non-supportive families who are overly dependent on the boyfriends for emotional support.

The narcissistic, self-orientation of the early adolescent which leads to "self-serving, highly idealized, tenuous, and superficial" relationships (Santrock, 1987), also contributes to its eventual breakdown. Superficiality, common in the dating relationships of this age group, is perhaps the result of the early adolescent's preoccupation with the self; the "imaginary audience". Consequently, the young girl dependent upon another egocentric adolescent for her emotional support, will be especially vulnerable to feelings of rejection when the relationship ends. Because not only is she losing desperately needed emotional support, her egocentric "self" has also been rejected. Feelings of rejection and loss of a significant other are strong risk factors for suicidal behavior.

Parental Psychiatric Disorder or Suicidal Behavior

In chapter two a discussion of the research indicates that a strong connection exists between parents who exhibit severe emotional problems, complete or attempt suicide, or have psychiatric disorders and their children and early adolescents who engage in suicidal behavior. Other research clearly indicates that parental suicidal behavior or preoccupation predisposes youngsters to suicide. Parental modelling of this type of behavior may lead children to view suicide as an acceptable way of coping, particularly if they view death as a pleasant, reversible state. Additional research conducted in the United States found that the rate of suicide (among

other family members) in families with adolescent suicide attempters was seven times greater than in families with non-suicidal youngsters (Garfinkel, Froese, & Hood, 1982).

A study in Toronto looked at family psychiatric disorders and found a high incidence of parental alcoholism and drug abuse in the fathers (60%) and mothers (33%) of young suicide attempters. Other research reported that parents of suicide attempters exhibited more low self-esteem, depression, and alcoholism than the parents of non-suicidal youngsters.

Particular types of behavior and coping styles modelled by parents are a major influence on the youngster's own methods of managing life's stressful events. Children who see alcohol, drugs, depression, or aggressive behavior used consistently to cope with stress are more likely to use them as well. Other researchers speculate that some adolescent suicidal behavior is less a wish to die than a desperate attempt to bring some order into a chaotic and destructive family setting. They see teens who react to family strife with suicidal threats and behavior as exhibiting coping and communications skills consistent with a dysfunctional family situation.

Finally, the subject of suicidology would be enhanced through research to determine whether current studies support a social imitation model or a genetic inheritance model of adolescent suicide or a combination of both.

Childhood Maltreatment and Neglect

Research shows that family violence is common among young attempters and suicidal children. A study contrasting normal with abused and neglected children aged 5 to 12 years reported self destructive behavior (self-biting, self-cutting, self-burning, hair pulling, head banging, **suicide attempts, and suicidal threats and gestures**) in 49.6% of the abused children, 17.2% of the neglected children and only 6.7% of the normal children. This and other similar research support the explanations that the risk for suicidal behavior is increased by the child's sense of "worthlessness, badness, and self-hatred as a consequence of parental assault, rejection, and scapegoating" (Green, 1978).

As a result of dysfunctional parenting, many children reach early adolescence without adequate nurturing or need fulfilment and with poor problem solving skills, all attributes for healthy psychological growth. Suicidologists suggest that early adolescents lacking in positive psychosocial skills, so essential for adequate adjustment to the changes of puberty, are at increased risk for suicide. Suicidal adolescents, more often than not, have received little affection or support from parents who communicate in a punitive and destructive fashion (Berman, 1986b). As a consequence of an antagonistic family milieu some early adolescents may feel expendable and yet without the resources or confidence to leave home they become more hopeless, depressed and eventually suicidal. Many others leave home to escape from abusive situations (particularly girls who are sexually molested by fathers) only to end up on the street as prostitutes or drug addicts. Research shows that these youngsters also exhibit feelings of depression and helplessness; two factors associated with adolescent suicidal behavior as we shall see in the next section.

Two conclusions are drawn from the preceding discussion. First, the risk of suicide increases dramatically for children and adolescents if they have already attempted suicide or have a close family member who has completed suicide. Secondly, most youngster can cope with excessive life stress (and perhaps avoid suicide) if they have at least one supportive, caring adult in their lives.

Feelings of Hopelessness

The youngster's emotional state, is a predisposing variable in childhood and adolescent suicidal behavior. Depression (Freud) and social isolation (Durkheim, 1951) have had a continuing association, as psychological and interpersonal components of suicidal behavior. In the past the association between depression and childhood and adolescent suicidal behavior was met with scepticism by some mental health professions. The general assumption being that children and early adolescents were developmentally incapable of experiencing depression

(Pfeffer, 1990). Current literature which sets specific criteria for diagnosing and assessing depression in youngsters aged 10 to 15 has put this belief to rest. (See chapter two of this thesis.)

Although depression is now recognized as occurring in 10 to 15 year olds, many researchers believe that depression may be one of several factors that may account for suicidal behavior in these youngsters. Before examining an important factor, hopelessness, I will briefly discuss the varied behavioral manifestations peculiar to depression in children and early adolescents as a way of explaining depression's sometimes limited appearance in suicidal behavior in this age group. In children, depression may be manifested by behavior, such as; hyperactivity, acting out and sleeplessness or listlessness and withdrawal. Other indications of depression may be school phobia, learning difficulties or academic perfectionism, and poor socialization. Orbach (1984) found that feelings of **hopelessness**, poor impulse control and cognitive rigidity were common in suicidal children, but in only a few of these cases were the children clinically diagnosed as depressed.

In adolescence, depression expresses itself through boredom, restlessness or conduct disorders. Some adolescents use drugs, alcohol and sex to shield themselves from the pain of depression. The following are other manifestations of depression often seen in suicidal adolescents: insomnia, negative self-image, impulsivity, narrowness in judgment; deficient problem solving skills or cognitive rigidity, low level of frustration; anger, rage or hostility; withdrawal from peers or family, loneliness, lack of interest in normally enjoyable activities and feelings of **hopelessness** (McIntire & Angle, 1980; Berman, 1986; Capuzzi & Golden, 1988; Fremouw et al., 1990; Pardes & Blumenthal, 1990; Pfeffer, 1990).

Recognition of the above manifestations of depression peculiar to children and adolescents is crucial to the accurate assessment of suicidal risk. Parents, educators, and clinicians must be aware and sensitive to these indicators of depression as they are often an indirect and unnoticed

"cry for help". A youngster perceived as disobedient or as a loner may in fact be deeply distressed and on the verge of suicide. Obviously not all juvenile delinquents (young offenders) are suicidal, but it is better to identify many false positives rather than miss those who are really in need of help.

Hopelessness

Although depression and hopelessness are similar constructs, current research recognizes that **hopelessness**, is distinct from depression, and is more consistently correlated with (and is a better predictor of) suicidal behavior (than depression) particularly in children and adolescents (Beck, Kovacs, & Weissman, 1975; Garfinkel, Froese, & Hood, 1982; Berman, 1986, Davis & Sandoval, 1991; Garland & Zigler, 1993). In fact, recent research points out that when **hopelessness** is added to the lives of depressed youngsters it becomes the link between depression and suicide (Beck, Steer, Kovacs, and Garrison, 1985). Furthermore, Beck and his colleagues (1985) found that **hopelessness** is a predisposing factor in suicide if the person suffers other psychiatric disorders. Other research indicates a stronger correlation between **hopelessness** and suicidal ideation and behavior in preadolescent children than between depression and suicidal behavior.

The research of Orbach (1986) provides a clinical example of the influence of hopelessness in the life of an early adolescent boy. Orbach relates his idea of the "insolvable problem". This involves a youngster confronted by a problem he cannot solve because of developmental, family, or life constraints. In Orbach's case study the parents of the boy were in continual disagreement. One of the parents after pressuring the boy for his support, would then castigate him for being disrespectful towards the other parent. This scenario was repeated by the other parent in a successive confrontation. After finding himself in this predicament many times (of choosing sides and then being harshly criticized by that parent) the boy, feeling hopeless and confused, eventually attempted suicide. This story is surprisingly similar to being in a

"double bind situation" or to put it in the vernacular; "being caught between a rock and a hard place!"

Two additional examples of a double bind situation are also linked to hopelessness. The first, unique to females, is an unwanted pregnancy. The early adolescent coping with feelings of shame, desperation, concern about her condition and fearing a wrath-filled reaction from her parents may perceive suicide as a solution to her problems. This could be particularly true if she views death as a pleasant, reversible state. Sexual assault or incest, the second example, happens to both sexes but more often to girls. The same result can occur in this scenario, particularly if the father is the perpetrator of the assault or incest. In the case of incest, the young girl has few avenues of escape. They have few financial resources and because of their young age are still closely tied to the family. These youngsters are caught in a dilemma of realizing that incest is wrong but at the same time the childhood notion that parents are to be loved and trusted remains a powerful influence. If the early adolescent does leave home and becomes a "street kid" about the only way for them to earn money is through prostitution. Research has shown that most prostitutes were sexually abused as children.

Cognitive Factors and Hopelessness

I maintain than many early adolescents find themselves in a double bind or "insolvable problem" situation due to developmental, family, and life restrictions. It is also my contention that most early adolescent suicidal behavior is often the result of powerful feelings of hopelessness. These youngsters experience this hopelessness as a result of finding themselves in just such a double bind or "insolvable problem" situation. I believe that some early adolescents find themselves in a double bind situation because of the restrictions placed on their problem solving skills due to pubertal changes in cognition that occur during early adolescence. Perhaps these youngsters are more susceptible to being in this type of predicament primarily because during puberty their thinking begins to change developmentally, moving from concrete thinking

to formal more abstract thinking. This shift in cognitive ability occurs gradually so the early adolescent continues to use the old while experimenting with the new. I believe that the old concrete "black and white" thinking of childhood may restrict the new, emerging formal cognitive ability of seeing many possibilities, to seeing only one possibility. In addition, the egocentric nature of the early adolescent personality leads them to view their problems as unique and insurmountable; "no one can possibly understand or experience what they are going through." Furthermore, stressful situations are well known to produce narrow, limited thinking. Thus, the concrete thinking of childhood restricts the development of formal operational thinking (seeing several possibilities) to a narrow rigid view of the problem. Consequently, I believe many early adolescents, who live in stress filled dysfunctional families, are forced into a state of hopelessness because of the pubertal transition from one cognitive developmental level to the next.

In support of the foregoing discussion, a review of the literature not only supports the belief that suicidal children and adolescents endure greater amounts of stress than nonsuicidal youngsters but the data also defends the idea that suicidal youngsters commonly display poor coping strategies, deficits in problems solving skills ("generating fewer alternative solutions to problems" Garland & Zigler, 1993), and are less proficient at solving interpersonal problems (Davis & Sandoval, 1991). Cognitive factors of poor coping strategies, deficits in problem resolution, and ineffectual interpersonal skills when combined with high stress and hopelessness all contribute to suicidal behavior in children and early adolescents. Each of these factors is peculiar to the cognitive structure of the early adolescent that may influence the emotions and behaviors.

It is the premise of this thesis that the level of cognitive development in early adolescents contributes to suicidal behavior in this age group. Developmentally, early adolescence is viewed as a period of transitions. One of these transitions occurs within cognitive development. Here the cognitive progression happens gradually and as was mentioned previously, the early

adolescent may continue to think concretely and abstractly simultaneously. How might this simultaneous thinking affect suicidal behavior? The ability to think hypothetically allows the youngster to reappraise old beliefs and to see the world in a new and perhaps unrealistic light. But there are few reality checks available to early adolescents, due to their limited life experience and the restrictions of the concrete operation stage on their cognitive abilities. Consequently, many early adolescents see their lives and problems from an egocentric, narrow perspective. This can have fatal consequences if suicide is seen as the only solution to their problems.

We know from the research that poor coping skills, social withdrawal, and an inability to visualize the consequences of their actions combined with extreme stress and hopelessness can lead some early adolescents to use drugs and alcohol as a "substitute for coping and a form of escapism" (Davis & Sandoval, 1991). Considerable research also indicates that substance abuse increases the risk of suicide. How might substance abuse as a form of coping be a factor in early adolescent suicidal behavior? Suicidal fantasy and ideation are quite common among adolescents, an estimated 62% to 67% of youngsters aged 13 to 18 years in the United States have at some time considered suicide as a solution to their problems (Smith & Crawford, 1986; Centers for Disease Control, 1989). Substance abuse through the loosening of inhibitions can turn these fantasies and ideas into tragic reality.

Substance abuse, as Davis and Sandoval (1991) mention above can also be a form of escapism. We know from the research that suicidal behavior is as much an escape from perceived intolerable stress and hopelessness as it can be a last ditch effort to gain control over one's situation (Hawton, 1986; Smith & Crawford, 1986). Berman (1986), in looking at the concept of escapism within suicidal behavior, found that some suicide completers did not intend to die. More importantly, he also found that a majority of adolescent suicide attempters had motivations other than a desire for death as an explanation for their behavior.

Suicidal behavior in children and early adolescents often appears to be the final, often impulsive, solution used after a progressive failure to resolve several interconnected conflicts. In the preceding discussion we have seen how family characteristics and feelings of hopelessness are influential predisposing factors in early adolescent suicidal behavior. The last, but certainly not the least, predisposing variable is the youngster's own concept of death. However, before turning our attention to this idea, we must look at the role motivation (or the degree of intent to take one's life) plays in suicidal behavior in children and early adolescents.

Motivation or Degree of Intent

To achieve an appreciation of suicidal behavior in children and young people we must look at certain areas: family characteristics, the feelings that lead to the behavior, the motivation attached to the behavior, and the youngster's concept of death. We have already discussed family situation and feelings of hopelessness, the child's and early adolescent's concept of death as it relates to suicidal behavior will be addressed in a later section of this chapter. However, a brief statement about how the concept of death affects motivation will be included here. Research has shown (see chapter two) that as the child and early adolescent grow towards a mature concept of death the motivations for suicide seem to change from the impulsive act of the child to a more internalized, conflict resolving attempt of the adolescent. The youngster's attitude towards death also plays a role in the motivation attached to suicidal behavior. Pfeffer's (1979) research found that suicidal children are more engrossed with thoughts of death, their own and others, than are other children. It is important to remember that Pfeffer and her colleagues' study revealed that some suicidal youngsters view death as both a temporary and a "pleasant" phenomenon. This idea that death is temporary and pleasant is vital to the premise of this thesis. The transitional nature of cognitive development in early adolescence combined with a belief that death is pleasant and temporary may be an important motivational factor that pushes some early adolescents toward suicidal behavior.

Motivation, the intention, need or reason behind the attempt, is often difficult to determine. This difficulty occurs because some youngsters will not admit to a serious intent and, although there are common predisposing factors, each youngster's circumstances have unique qualities. What the little research done in this area has shown is that early adolescents commonly deny self-destructive intent, even after a suicidal attempt or threat has been made (Pfeffer, 1990). A study in England ((Hawton, 1986) found that the intention is often denied because the young person fears punishment and disapproval. This is one reason it is difficult to elicit information concerning individual motivation or intentionality in suicidal attempts. Thus it is rarely investigated. Consequently, researchers mix together different types of attempters, those who wish to die are combined with those whose intent is not self-destructive. Many researchers believe that few suicidal adolescents actually want to die. A commonly held view is that childhood and adolescent suicide attempts have quite different motivational characteristics than a strong death wish.

By looking at some of the motivational characteristics of adolescent attempters, particularly those who do not wish to die, we may develop a better understanding of suicidal behavior within this age group. Hawton, Cole, O'Grady, and Osborn (1982) in a study of the motivational aspects behind adolescent suicide attempts found that the youngsters they studied (aged 13 to 18 years) most commonly explained that they wanted to get relief from distress, to escape for a while from an impossible situation, or to make people understand how desperate they were feeling. These three explanations demonstrate that some suicidal adolescents do not actually want to die. As well, I believe, these findings support those which link adolescent suicide attempts, disturbed family environments and a sense of hopelessness.

Interestingly, the above study also looked at suicidal intent at the time of the attempt. The same adolescent attempters were asked to choose from three statements to indicate whether at the time of the overdose they had: (1) wanted to die, (2) didn't want to die, (3) didn't mind whether

they lived or died (Hawton, et al., 1982). The adolescent's interviewing clinician was also given the opportunity to assess the adolescent's response to these items. Hawton and his colleagues (1982) found that 54% of the adolescents had chosen "wanting to die" and yet the interviewing clinicians had described only 14% of these same adolescents as "wanting to die". Hawton interprets the discrepancy by suggesting that the adolescent chooses "wanting to die" because it provides a simple and more readily acceptable reason for the attempt. I also agree with these researchers that the adolescents do not choose punitive or manipulative explanations because these are an unrecognized "unconscious expression of externally directed hostility" (Hawton, 1986). In other words, in choosing a more explicit explanation, the adolescent attempter runs the risk of alienating their desperately needed source of love and support. Perhaps the adolescents in Hawton's (1982) and other similar studies feel "as if" they want to die because they do not see death as final but as a reversible and pleasant state.

The following section will present further research into the motivational aspects of adolescent suicidal behavior. These studies not only reinforce the three motivating explanations of Hawton, and his colleagues (1982) (1. relief from distress, 2. temporary escape, and 3. cause awareness of their desperation) but they also support my premise that some suicidal adolescents, see death as short-lived and do not want to die. For example, a study of six hundred 13 to 16 olds found that 25% believed that death was not final (McIntire, et al., 1972). As well, Pfeffer (1981) found the feeling that death is not final to be particularly true for suicidal children and early adolescents. Others believe that adolescent suicidal behavior is not a wish to die but that these impulsive, self-destructive acts are a desperate measure taken by the adolescent to gain control over and bring stability to a chaotic life situation (Smith & Crawford, 1986). Often attempts that are manipulative or punitive are the result of the adolescent using similar, acceptable coping and communication styles modelled by others within their dysfunctional family. As we have seen several times the adolescent's motive in a suicide attempt is often the desire to change

the behavior of others or to escape an intolerable prison-like existence. Several researchers (see chapter two) maintain that for children suicidal behavior carries a powerful wish for change in their situation or in other's feelings and behaviors. They also see the child's attempt as a cry for help or a plea for change in a stress filled life rather than a death wish which may be minimal or non-existent. Personally, I think that the suicidal behavior of children and early adolescents results from tremendous need to escape from intolerable stress. This coupled with the belief that death is reversible and pleasant, often ends in tragedy for the youngster.

As an additional note, Retterstøl (1993), through his Scandinavian research, assumes that suicide attempts, at any age, are a warning that something is seriously wrong in the attempter's life. He suggests three "A's of Suicidology" as explanations for suicide; none of which is a strong death wish: (1) aggression towards a significant other; (2) appeal a "cry for help" or "plea" to the significant other to give the attempter more affection, time, and concern and; (3) ambivalence about death, the attempt is a form of "gambling with life" and suggest the attempters desperate need for a change in their situation. Retterstøl also maintains the view, similarly held, by this writer, that there is not just one motive for suicidal behavior but that the suicide act is the culmination of a long series of turning points, in which a true desire to die plays a minimal or in some cases non-existent role.

We have seen from the studies of many prominent researchers that much early adolescent suicidal behavior is more a wish for change, or a temporary escape, or relief from stress than a desire to actually die. If the motivation underlying the early adolescent attempt is not a true desire to die, does that mean that an unrealistic view of death plays a role? The premise of this thesis is that some older children and early adolescents have an immature, or incomplete concept of death. We will now turn our attention to the third predisposing variable influential in suicidal behavior among 10 to 14 year olds; the youngster's concept of death. In the course of our

discussion we will look at what contributes to the false assumption held by some youngsters that death is a pleasant, reversible state.

Concept of Death

Why should we be interested in determining the role that a concept of death plays in early adolescent suicidal behavior? The age at which youngsters develop a concept of death, especially in terms of death being both universal and irreversible, is important to the understanding of suicidal behavior between the ages of five to 14 years. Although there is research on children's concept of death (see chapter two of this thesis), there are few studies that link it as a predisposing factor in suicidal behavior. In my analysis of the research I found only one article (Gould, 1965) that briefly deals with the connection between concept of death and suicidal behavior in youngsters. A few articles (see chapter five) concerning suicide prevention for adolescents cursorily mention the importance of death education in high school suicide prevention programs. But I believe that high school is too late; children need to understand, as early as possible, that death is final and people do not come back to life. Children who learn that death is final, I believe, would be less likely as early adolescents to view death as a pleasant, reversible state. This knowledge might actually prevent some youngsters from impulsively attempting suicide. They might be more inclined to seek professional help or other solutions for their problems.

Even Garland and Zigler's (1993) informative and up-to-date survey of the implications of adolescent suicide and various prevention programs fails to consider the influence a youngster's concept of death might have in suicidal behavior. Perhaps if we looked at suicidal behavior from a new perspective; that a major predisposing factor is an unrealistic view of death, then our prevention programs would begin in elementary school with death education as part of the health curriculum. (See chapter five for further elaboration of this idea.) Currently most prevention programs seek to identify high risk youngsters and work to reduce the prevalence of

these predisposing factors in the general society. Other methods seek to educate teachers and health care professionals in suicide warning signs, to provide treatment for at risk youth, to restrict the use of firearms and to provide suicide information to the media. The fact that adolescent suicide continues to rise suggests that some or even all of these methods are not totally effective.

Is Western culture so afraid of discussing death that we eliminate perhaps the best method of prevention; namely learning about death? Would teaching about death in elementary health curriculum make any difference in lowering suicide statistics? Prior to the introduction of sex education in schools, its discussion was taboo, as are death and dying today. Yet statistics demonstrate that by providing students with accurate sexual information the teenage pregnancy rate dropped. Could open, frank discussion about dying and the different cultural and religious burial practices after death encourage an accurate awareness about what happens when someone dies and perhaps prevent some early adolescent suicides?

Contemplating death and dying is not unusual for today's youngsters. In fact, our youth are confronted with death every day in the music they listen to and in the movies and television they watch. But their perceptions of these deaths and scenes of dying are often unreal and as remote from them as the idea of their own death. The research mentioned in chapter two of this thesis indicates that adolescents have thoughts about what death is like. According to Erikson's developmental view, contemplation and exploration of the unknown are important aspects of adolescence. The concept of death and dying is one of these unknowns. Actual death, their own or that of a sibling or peer is an unfamiliar concept to many adolescents because for most youngsters their own youthfulness and sense of immortality puts death in the far distant future. As well, death is not a familiar occurrence for today's youngsters as it was 70 years ago. Children rarely die of disease and the elderly live longer. Also most people die in a remote hospital and not within their own family home.

We can extend Erikson's idea that adolescence as a time for searching for "who am I?" and "What can I be?" to include a desire to understand and explore the unknown concept of death. This adolescent need to explore and experience many sensations may be an explanation for some of the reckless, impulsive, and risk taking behavior that occurs during this stage of development. Some adults when examining their own adolescent experience may recognize a few risk taking experiences as having a "death wish" component. This component is perhaps not a true wish to die but more a desire to experience the sensation of death and then to return to real life. This may occur because adolescents believe in their own immortality since real death seems so remote in time. I think this is a reasonable explanation for the early adolescent belief that they can be observers of their own funerals and see the grief expressed by friends and relations.

In my view, this perception of being an observer at one's own funeral stems from the fact that many youngsters have an immature, distorted view of death. We saw from the research review in chapter two that death is perceived as reversible by many 13 to 16 year old adolescents. McIntire and Angle (1971, p. 698) wrote that the "adolescent has a sense of personal immortality; no matter what his stated concepts are, because his own death is so remote in time". As well the research demonstrated that suicidal youngsters are intensely preoccupied with death and "... believe that death is a temporary, pleasant state that will relieve all tensions" (Pfeffer, 1986, p. 114). Consequently, if we allow our children and adolescents to maintain a distorted, unreal, concept of death, we should not be surprised when a young person impulsively attempts suicide. Most suicide attempts are impulsive; the youngster giving less than 15 minutes thought to the action that might end in death. Knowledge about the finality of death might deter some early adolescents from wishing to experience the unknown idea of death through reckless and impulsive behavior.

I believe that three interdependent components contribute to a youngsters view of death as a reversible, pleasant state: (1) cognitive level of development, (2) North American attitudes

towards death, and (3) the influence of television and movie violence. Interestingly, when I first thought of these three interconnecting themes (in 1989), I was not aware of Gould's (1965) rarely referenced article where he too combines these three factors.

1. Cognitive level of development. The first is central to my thesis: that early adolescents have not achieved full mastery of formal operational thinking. As a result they may think about complex issues from a concrete narrow point of view. This limited focus prevents them from seeing that their immediate actions may have dire future consequences. Moving to and fro between concrete and formal thinking allows these youngsters to see the "what if" but prevents them from fully understanding the significance of the "then this will happen". Many adults have witnessed the results of this type of adolescent thinking in such areas as teenage pregnancy, substance abuse, and delinquent behavior. Particularly when these youngsters lament, after the fact: "I didn't think I would get pregnant; or become addicted; or get caught."

In an effort to understand the concept of death, children are at a distinct disadvantage. The finality of death, a concept many adults have difficulty conceptualizing, is quite beyond the child's comprehension since developmentally they do not think abstractly. It can also be difficult for the early adolescent to grasp this concept. Depending on their own level of cognitive development, early adolescents can be closer to either the child or the adult in their understanding of the meaning of death.

2. North American attitudes towards death. The second factor concerns our culture's emphasis on glorifying youth and a dread of talking about death and dying to the extent that we cannot accept dying as part of the inevitable cycle of life. The taboo in Western culture which inhibits the frank discussion of death with children can lead to deception and distortion of this concept in their young minds. Many adults, in a mistaken effort to protect children from the reality of dying use euphemisms when describing death. For example: "I lost my grandpa, by husband was taken from me, my pet was put to sleep, grandma is with the angels, Aunty Marge passed

away" all convey the idea that death is not unpleasant or a final cessation of life but a peaceful sleep and grandma might return from the angels or pet might wake up. Research has shown that some children believe they can join the "lost" loved one in heaven and be with the angels. When we perpetuate the idea that death is a pleasant, reversible state we do children a real disservice.

Less than eighty years ago the sights, smells, and sounds of death were as much a part of family life as giving birth in the conjugal bed or having your tonsils removed on the kitchen table. Now because of modern science, death and dying are relegated to sterile medical centres; where the dying are known only as a disease and not for all the things they achieved in life.

Older teens, with perhaps a more realistic conception of death may be less effected by the influence of cognitive development and cultural attitudes towards dying. However many older adolescents still engage in reckless, impulsive behavior, with little regard for their own mortality, well into their twenties.

3. Influence of television and movie violence. The third and final factor pertains to the unrealistic portrayal of death and brutality in cartoons, television drama, and movies which never show the resulting trauma to the body, the bruises, sore muscles, and massive swelling that occurs after a beating. Often the "dead" character is seen again in another program in the same week. Children who see familiar actors die one day only to reappear the next may believe falsely that death is reversible.

Could a distorted concept of death encourage or discourage an early adolescent suicide attempt or homicide? We can take the position that an immature concept of death prevents suicidal behavior based on the idea that youngsters must understand a concept before they can deal with it effectively. Yet we know that children have difficulty with this concept because of its abstract nature. This can to some extent be true for early adolescents depending on their level of cognition. Therefore we should assume that most children and many early adolescents don't understand the reality of death. Most of what they do know comes from television which has

trivialized death and violence to such an extent that most youngsters have become desensitized to the full horror of violence and death. Consequently, I believe that not understanding the true reality of death not only encourages early adolescent suicidal behavior but also increases homicide in this age group. Research has shown that suicidal children and early adolescents perceive death as a way out of their difficulties. I feel that this perception of death as a pleasant, sleeplike state develops as a result of inaccurate knowledge and because death and violence are trivialized on television and in movies. It is precisely because of their inability to grasp the reality of death that children and early adolescents don't believe that death is final and irreversible. Most youngsters do know what is right and what is wrong, however I think they do not fully appreciate the gravity of their actions when it comes to impulsively attempting suicide or shooting a schoolmate in a moment of anger. If we allow children to continue in a state of ignorance about the reality of death, then we as adults must accept the blame when youngsters kill themselves or others. Accurate knowledge does help to prevent tragedy.

Central to my thesis is the conviction that these three components of immature cognitive development, a euphemistic and limited knowledge of death's finality, and unrealistic and excessive dramatization of death and violence on television, all contribute to an attitude that death is a temporary, reversible state. I maintain that some early adolescents, whose personal lives are fraught with hopelessness and as well perceive death as temporary, use suicide as a solution to their problems. Consequently educating youngsters about the finality of death might make death seem real and suicide less an option for ending life's stresses. Furthermore, if the cultural taboo against discussing death realistically was removed in Western society, youngsters today might be less inclined to see suicide as an option to solve life's problems.

Conclusions Drawn from Chapters Three and Four

Cognition: The link between suicidal behavior and early adolescence

To better appreciate suicidal behavior in youngsters aged 10 to 14 it is necessary to identify the physical, social and cognitive changes associated with puberty during early adolescence. These changes provide essential background information for the premise of this thesis. The premise is that the changes in cognition which occur during early adolescence provide a link between suicidal behavior and this developmental stage. Understanding the developmental process unique to the early adolescent may help to explain why suicidal behavior becomes an option for some of these youngsters. (The reader who wishes to review the physical and social changes may refer to chapter three of this thesis.)

I believe that the cognitive changes that occur during puberty and early adolescence are contributory factors to suicidal behavior in this age group. Recently medical research has begun to explore the connection between the health of the mind and the health of the body. Could research into this mind-body connection bring further clarification to many typical early adolescent behaviors? Is the constantly sought affirmation of the peer group a mental necessity for coping with the major physical changes of puberty? Are feelings of self-consciousness (Elkind's imaginary audience) due to the early adolescent's new ability to see themselves as different because the body changes so visibly (either too much or too little, but hardly ever just right)? Those feelings of invulnerability (Elkind's personal fable; that often prevent seeing consequences of various behaviors) are they a kind of mental protective insulation from the strong emotions attached to the myriad changes which occur physically and mentally? Perhaps the early adolescent mind develops the imaginary audience and the personal fable to enable the self to cope with a rapidly changing body. Could youngsters with differing levels of self-esteem, dysfunctional family characteristics, and feelings of hopelessness develop different degrees of

imaginary audience and personal fable characteristics? Do early adolescents with a positive sense of self display fewer of the mannerisms of adolescent egocentrism?

The above questions have emerged as a result of the author's survey of the literature on early adolescent suicidal behavior. Although not directly addressed in this thesis, I believe these questions are worthy of future consideration by educators and others interested in early adolescence. Particularly, if the changes in cognition which occur during early adolescence are viewed as a practical link between suicidal behavior and this developmental stage.

Beginning in early adolescence near age 11 or 12 years, children move toward formal operational thinking. (The reader interested in further information may refer to chapters three and four of this thesis.) With formal operational thought early adolescents are able to think not only beyond the present but to reflect upon their own thoughts. Thus their thinking becomes filled with idealism and possibilities, and is less rigidly fixed on aspects of reality which are concretely defined. This newly acquired thinking process enables some early adolescents to imagine all kinds of future contingencies which are often illogical or unrealistic. The ability to think in possibilities often without a reality check could have implications for early adolescent suicidal behavior.

The cognitive changes that begin with puberty also permit early adolescents to contemplate the physical manifestations of this developmental stage, as they occur. Not only can early adolescents see themselves change physically, for the first time, but their emerging cognitive development allows them to think and feel about themselves from a new perspective. One might argue that children also grow and change dramatically between two years of age and 11 years. Yet no one ever mentions "childhood angst"! We do not hear children complain about the size of their nose or feet or that they are taller or shorter than their friends. It is with formal operational thought that self criticism attains ascendency, new mental operations permit these youngsters to reflect not only upon themselves but also upon the thoughts of others and to

perceive themselves (often incorrectly) as the constant object of those other's thoughts. Cognitive changes and the formation of adolescent egocentrism enable early adolescents to scrutinize, ponder, analyze, reflect upon, and examine every aspect of their emotional, social, and physical beings: and at the same time, it lets them believe that other people are equally interested in these aspects. I believe that cognitive change in the form of egocentrism provides the link between early adolescence and suicidal behavior.

During early adolescence the emergence of formal operational thought allows increased "perspective taking", the ability to step outside one's self and to anticipate reactions to yourself, your ideas, or your behavior (Elkind, 1967). Muuss (1982) sees perspective taking as a form of "self-focus" (or egocentrism) that results from a direct need to shield the self from the rapid body changes of puberty. Consequently, during puberty often these youngsters are already overly concerned with their body image, this new cognitive ability of perspective taking allows them to conclude (often erroneously) that other people are equally interested in their appearance and behavior. This inability to differentiate what is important to others from what is important to themselves constitutes the downside of the mental advances which occur during early adolescence. Later in this section we will see how this negative aspect affects behavior. According to Elkind (1980), emerging formal operations makes possible new achievements not only in cognition but in the youngsters interpersonal life as well. He believes that some early adolescent interpersonal behavior is explained through adolescent egocentrism which appears during this period of developmental change.

To reiterate, early adolescents are preoccupied with thoughts of themselves and believe that others share this preoccupation. However, the early adolescent's inability to differentiate between the object of their own thoughts and the thoughts of others forms the basis for adolescent egocentrism. Thus, adolescent egocentrism is an extremely self-oriented form of perspective taking. Early adolescents are not only self-absorbed but also anticipate the reactions of others

to their appearance, words, and actions. Elkind (1967) translates this "anticipation" into the concept of the imaginary audience. The imaginary audience is the constant overseer of the early adolescent's appearance, thoughts and behavior. Elkind believes that this imaginary audience explains not only the increased self consciousness of early adolescence but other behaviors as well. The early adolescent sense of uniqueness; the personal fable, develops as a direct counterpart to the imaginary audience.

Most adolescents have difficulty separating their own concerns from those of other people, as a result they over "specialize" their own feelings. This occurs because of the constant scrutiny of the imaginary audience which encourages them to see themselves and their thoughts, feelings and problems as unique and special (Elkind, 1978; Kimmel & Weiner, 1985; Looft, 1972; Mitchell, 1992; Muuss, 1988). This helps explain the oft heard lament of the early adolescent; "No one understands me — or how awful, unloved, horrible, or (even!) wonderful I feel!" Emotions are intensified by the ever present imaginary audience. Elkind believes that the personal fable (the belief that one is unique, special, invulnerable) develops as the consequence of this over-emphasis on one's own feelings. The early adolescent belief that they are immortal, special, and peerless derives from the egocentric perception that they are always the "center of attention" for the imaginary audience (Kimmel & Weiner, 1985).

The imaginary audience and the personal fable are compelling influences on the emotions and behaviors of the early adolescent. For example, some of the hair styles, faddish dress, colloquial speech patterns, and role experimentation exhibited by these youngster is displayed not only to impress the imaginary audience but also the peer group. Being "best friends" with someone one day and snubbing them the next, being able to say "I'm going 'out with' x, y, or z (even if this only lasts two or three days), petty shoplifting on a dare, or taking the family car for a midnight joy ride are some of the less dangerous activities employed by early adolescents to win imaginary audience approval. Elkind maintains that adolescent actions which appear self-

destructive may be attributed to attempts to win audience approval and thus exaggerate one's personal fable. For instance, I have added some additional examples to Mitchell's (1992) list of common personal fables of indestructibility maintained by many adolescents: (Mitchell's are in quotes.)

> "Pregnancy will never happen to me.
> Alcohol and drug addiction will not happen to me.
> The usual consequences of behavior do not apply to me."
> I won't get AIDS if I have unprotected sex.
> I can drive drunk but I won't crash my car.
> I can engage in petty crime but the police won't catch me.
> My boy-girlfriend will always love me, therefore my early marriage will be perfect.

The actions associated with these statements and the earlier less dangerous ones, serve a dual purpose; they impress the audience and at the same time enhance and support the personal fable that one is unique and special (Elkind, 1980). For when youngsters outsmart adults and engage in forbidden acts without getting caught, or pregnant, or addicted, their fortunate (and lucky) behavior impress the imaginary audience and simultaneously reinforces their personal fable that they are invulnerable to common human calamities. For as Mitchell (1992) points out:

> When the words 'me' or 'I' enter the sentence in any important or critical way, *egocentrism strengthens its grip and narrows the focus of thought, often with such force that it overpowers impartial thought*. (p. 43-44, italics mine)

This may explain the misperception that although the world is filled with tragedy and people do experience accidents, severe illness, and death, these common human afflictions will not happen to them.

The notion of being special and unique does have some beneficial aspects. Kept within realistic boundaries, it enables youngsters to "suffer the slings and arrows" of daily life problems without becoming completely discouraged, disillusioned or hopeless. However, the early adolescent whose self-concept is tied to peer approval can be emotionally devastated when the peer group turns its attention elsewhere. Particularly if their imaginary audience is hyper critical;

which for the most part it is. Sometimes the imaginary audience, aided by the personal fable, promotes an overly optimistic assessment of the youngster's social skills, athletic prowess, academic standing or appearance. These two egocentric constructs can foster such an inflated sense of one's abilities that the failure to perform can lead to intense feelings of inadequacy. As was noted in chapter two, intense feelings of hopelessness and worthlessness are correlates of adolescent suicidal behavior.

Thus the problems associated with egocentrism are that it narrows the thought process, often distorts reality, and prevents what is painful from being confronted and dealt with. By narrowing the cognitive process and preventing acknowledgement of problems, egocentrism may seem to reduce anxiety initially. For example, youngsters may exhibit two kinds of thought mechanism to relieve the anxiety associated with intense stress; as in living in a dysfunctional family, dealing with school pressures, or having problems in a love relationship. First, early adolescents, due to immature cognitive development and the more persuasive influence of the imaginary audience and personal fable, may develop a fantasy that there is "no problem, or that the adult has the problem". This may explain why many adolescents fail to recognize the consequences of their actions. Secondly; older adolescents, who are becoming less influenced by the negative aspects of egocentrism may deny or fail to deal with a problem until it becomes insurmountable. Then they are confronted with just two options (as they see it); either living with the problem or opting out altogether (running away or committing suicide). For as someone once said "Suicide is an extreme form of procrastination". As one can see egocentrism narrows not only thinking but also options.

Egocentrism may at first reduce the anxiety of facing consequences but it can also increase anxiety. This is particularly true when youngsters assume (incorrectly) that they are the source of their parent's marital problems and divorce (if I were not around, my parents would be happy and stay together), or the family's poverty (if I were not here there would be more

food, money, etcetera). Even the overwhelming guilt some sexually abused youngsters feel is often due to their assumption that they "invited" or are to blame for the incest. Even "street kids" are not immune from the tendency to blame themselves:

> No matter which social class street kids come from, they tend to feel responsible for the crimes others perpetuate against them. Even non-street kids from privileged families... assume that family breakdown is their fault. (Webber, 1991; p. 31)

I believe it is the egocentric nature of adolescent cognitive development that encourages a narrowness of problem solving skills. As indicated in chapter three of this thesis, hypothesis testing, the ability to think through a problem to a logical conclusion, emerges slowly during early adolescence. Many early and even late adolescents, as well as some adults, do not always possess fully mature problem solving abilities. The immature thinker has difficulty in seeing more than one solution to a problem because egocentrism narrows thinking. The egocentric imaginary audience and personal fable encourage the early adolescent into believing that the consequences of actions will not affect them and also into thinking that she has all the answers even if they are negative or unrealistic. For developmental theory states that the concrete level thinker persists in "... clinging to the idea despite clear, logical disconfirmation of it". (Santrock, 1987, p. 132). Thus it should not be surprising when an early adolescent caught between the immature aspects of concrete thinking and the emotionally negative influence of egocentrism (her problems are unique and therefore unsolvable; even when there is ample contrary evidence) views suicide as the "only" escape from these problems. This notion in combination with an unrealistic view of death as a pleasant dreamlike state, can prove lethal.

According to Piaget, egocentrism is understanding and interpreting our experiences in terms of the self. Combining Mitchell's (1992) and Elkind's (1967) interpretations of adolescent egocentrism this construct can be expressed in two parts: "an incomplete differentiation of self from the outside world" (the imaginary audience) and "the propensity to interpret the world in

terms flattering to the self" (the personal fable). Why is this interpretation of egocentrism important to the understanding of suicidal behavior in early adolescence? The previous section referred to negative aspects of egocentrism on early adolescent behavior. To modify these negative behaviors it is necessary to encourage cognition at a more mature level. However mature thought (formal operations) cannot be achieved until the narrowness (the self-focus) inherent in adolescent egocentrism is replaced by the authentic ability to understand and accept another's perspective as valid and worthwhile (Mitchell, 1992). It has been mentioned before that the emerging intellectual capabilities of the early adolescent do not function consistently or efficiently. The higher mental processes of being objective, seeing consequences, using unbiased self investigation and accepting reality without falling to pieces cannot develop when the imaginary audience and the personal fable interfere and encourage the early adolescent to obtain their own wants and desires at any cost. As we have suggested the imaginary audience and the personal fable distort unacceptable information into more acceptable perceptions.

I believe that the imaginary audience and the personal fable, have a stronger influence on youngsters who lack self-confidence. As a result, overly egocentric early adolescents will often distort reality rather than face their own limitations and deficiencies. Consequently, egocentric influence is determined by the strength and depth of the early adolescent's self- esteem and to feelings of stability and security. A youngster with a well-developed sense of self and who experiences a safe, secure and stable environment is better able to subdue the negative aspects of adolescent egocentrism. In the final segment of this chapter we will review the method of suicide prevention that I believe is the most effective in providing early adolescents with a strong sense of self.

Conclusions Drawn from Chapter Five

> Educators need to be encouraged to give greater emphasis to this creation of a school environment that facilitates social support, provides positive learning experiences, encourages a sense of mastery, and builds self-esteem. Such a

> climate would benefit all children and especially those who might be at risk for suicide. (Dyck, 1990; p. 131)

By providing training in positive social interaction, and by preventing youngsters from becoming social isolates we can encourage flexible thinking and thus lessen the more negative aspects of the imaginary audience and personal fable. Research supports the idea that social interaction will modify and diminish the influence of adolescent egocentrism exemplified in these two constructs (Elkind, 1985; Flavell, 1985; Hafen, 1986; Muuss, 1988). Elkind (1985) states that encouraging positive social interaction during early adolescence might be better than the emerging mental capabilities (which are not universally acquired) at moving youngsters out of their egocentric perspective.

How can social interaction have this modifying influence on adolescent egocentrism? According to Elkind (1985) the imaginary audience is a personally constructed reality; an "anticipatory audience", before which the early adolescent tests various hypothesis in the form of different behaviors, dress, speech patterns, et cetera. Continual testing of imaginary audience concerns against reality (that is, through social interaction) enables the early adolescent to gradually differentiate her concerns form the concerns common to others (Elkind, 1967). Modification of egocentrism occurs as the "anticipatory" imaginary audience begins to resemble reality. Furthermore, Elkind (1967) believes that the personal fable is gradually modified (although never completely) by developing "intimacy" as described by Erikson (1968). Once the imaginary audience is adjusted to more closely mirror reality then the youngster "can establish true rather than self-interested interpersonal relations" (Elkind, 1967; p. 1032). As adolescents build mutual relationships and share concerns they realize that others experience similar feelings and sufferings. This knowledge helps them to put their feelings in a less egocentric perspective. Consequently egocentrism will have a less negative affect on early adolescents the more they experience positive, but true to life, social interaction.

Adolescent developmental research (see chapter three of this thesis) has shown that self focus while very high in early adolescence declines considerably by the end of high school. This suggests a basic law of cognitive development (proposed by Piaget) which is that mental growth moves from an egocentric (self-focus) towards a more sociocentric (towards others) view of reality. Muuss (1988) calls this "decentering". He believes it is facilitated by social interaction through which one-sided and self-interested perceptions are reconsidered and replaced in view of ideas put forth by others. Thus social interaction increases the youngsters ability to see several sides to an issue and to be more accepting of another's point of view. Obviously social growth and varied learning experiences decrease social egocentrism and promote empathy and social cooperation. But this evolution might be a slow or even incomplete process, particularly if we rely on developmental growth alone or if the youngster is a social isolate and has little opportunity for positive social interaction. Could the promotion of social learning skills within the educational system hasten this developmental process?

I believe that one way to lessen the negative aspects of egocentrism (one of which is suicide) is through a safe, secure, stable educational environment. Therefore out of the three approaches to suicide prevention programs discussed in chapter five of this thesis, it is the third or the School Transitional Environment Project (S.T.E.P.) that seems best suited for meeting the needs of youngsters in school. This recent innovative approach seeks to:

> ...bring an understanding of the role that environmental settings and developmental transitions have in influencing risk and vulnerability to adolescent suicidal behavior and the importance of creating healthy, developmentally enhancing environments, as a major element in school based suicide prevention programs. (Felner, 1993)

Not only do youngsters cope with pubertal changes (see chapter three) but many also must cope with the transition from elementary (grade six) to junior high (grade seven). Both the developmental and the environmental transition can be stressful experiences. Many educators acknowledge that moving from the structured, dependent atmosphere of elementary school to the

independence and apparent freedom of junior high creates adjustment problems, particularly for those already "at risk". This critical transition point is often accompanied by an increase in behavior problems, absenteeism, a decrease in academic performance and lowering of self-esteem. I believe these negative outcomes are also encouraged by adolescent egocentrism and poor social interaction skills. Felner and Adan (1989) suggest that "at risk" early adolescents who experience a negative adjustment to junior high are highly susceptible to substance abuse, delinquency, and other social disorders. An inability to cope with the normal developmental and social transactions of early adolescence due to feelings of hopelessness that result from behavior problems or substance abuse, poor school performance, dysfunctional families or ineffectual social interaction can lead to suicidal behavior in this age group.

I agree with Felner and Adan (1989) that normal school transitions do not have to produce negative outcomes in the youngsters who experience them. The difficulty experienced in mastery of the developmental and social transitions encountered during early adolescence reflects both the youngster's personal history, current coping skills but most importantly the environmental setting in which the transitions occur (Felner & Adan, 1989). As was stated earlier in this thesis some "at risk" youngsters exhibit profound anxiety and appear extremely vulnerable during times of change and dislocation (Shaffer, 1988). Anxiety and life stress are recognized as factors in reducing coping skills and problem solving strategies. As well, adolescent egocentrism as manifested in the imaginary audience and the personal fable also contribute to an early adolescent's distorted view of problems and to their inability to accept that certain behaviors have inevitable consequences even for them. Thus coping skills, problem solving strategies and a nurturing educational environment are all important factors that help youngsters survive the transitions of early adolescence. Berman and Jobes (1991; p. 100) note that the "adolescent deficient in these problem solving skills is more likely to distort his or her perception of the problem situation, express greater hopelessness, and behave with more

impulsivity". As mentioned in an earlier section of this thesis early adolescents who believe their problems are insolvable (due to egocentrism) and are filled with feelings of hopelessness may impulsively resort to suicidal behavior as a way of out of their predicament.

Just as the personal characteristics of the early adolescent affect their experience during transition times, so do individual school environments influence the level of risk attached to transitions. The School Transitional Environment Project (S.T.E.P.) (Felner & Adan, 1989) was developed and implemented to lessen the negative impact and transition for grade seven students entering large junior high schools. S.T.E.P. can benefit all youngsters, but particularly those at risk for academic difficulties during the transition year. Poverty, low levels of personal coping skills, minimal family support, and other life stresses and transitions (ie., entering puberty) are all factors which put some youngsters at risk for school problems. The above factors plus low grades and chronic absenteeism are consistently related to later school failure and early high school dropout (U.S. Dept. of Health, Education, & Welfare, 1975). S.T.E.P. initiatives, Felner and Adan maintain could reduce the number of youngsters failing in school and thereby prevent future high school dropouts.

Felner and Adan (1989, p. 114) hoped that by reorganizing the social and physical setting that the seventh grade student encounters, in order to increase safety, security, and stable peer support system and further by restructuring the roles of homeroom teachers and guidance personnel, S.T.E.P. could "... reduce the difficulty of the transitional tasks and [to] increase coping resources available to students. (Please refer to chapter five of this thesis for more details about S.T.E.P.)

Reorganizing the social and physical setting means that grade seven pupils are first assigned to a homeroom and attend four core subject classes with these classmates. This has the advantage of encouraging the development of a peer support system, as well the teachers get to know the youngsters better. Secondly, all grade seven classrooms are located close to each other,

which lessens the "overwhelming" nature of a large school, encourages same age socialization and reduces travel time between classes. Apart from these advantages, grouping of the grade seven pupils reduces feelings of alienation and promotes varied social interaction within a more secure, cohesive group. As was previously stated, positive social interaction moderates the negative aspects of adolescent egocentrism.

The second element of S.T.E.P. redefines the role of the teacher. S.T.E.P. encourages teachers to get to know their students and to share this knowledge in weekly sessions with other grade seven teachers. Getting to know their students on a more personal basis builds a trusting relationship between the teacher and the pupil. Youngsters are more apt to confide in and seek help from an adult with whom they feel rapport and respect. This is especially important because most adolescents view adults with suspicion and peer influence often prevents them from betraying a confidence. Being able to tell a respected teacher that a friend is contemplating suicide, dropping out of school, or is having troubles at home can help diffuse potentially serious situations. Thus teachers become the primary link between the students, their parents and the rest of the school.

There are several advantages to implementing S.T.E.P. as a suicide prevention program. Unlike category specific prevention programs, S.T.E.P. is very low cost in terms of teacher training and allocation of school resources. In addition, S.T.E.P. does not disrupt teaching time or require a charismatic expert to present information. Most importantly, Felner and his colleagues (1993) research illustrates the major advantage of using S.T.E.P. Four years after their initial experience, S.T.E.P. students had only a 24% high school dropout rate compared to a 43% dropout rate for students in a traditional school setting. By reducing the school dropout rate, S.T.E.P. offers policy makers an opportunity to reduce a wide variety of serious social problems, such as; delinquency, unemployment, teen pregnancy and AIDs and I believe, some early adolescent suicidal behavior. S.T.E.P. research (Felner, et al., 1993) confirms that

prevention programs that focus on modification of existing school practices may be more beneficial for all students than those that focus only on the individual. In reshaping two key components of a school environment, 1) the social and physical setting and 2) the homeroom teacher's role, S.T.E.P. provides safety, stability, and security to youngsters who must cope with the developmental and social changes of puberty during early adolescence, as well as, the often stressful transition to junior high school.

Finally, S.T.E.P. encourages the development during early adolescence of trust, autonomy, and initiative, all aspects of a healthy social identity. These attributes enhance social understanding and may serve to lessen the effects of adolescent egocentrism and perhaps prevent some early adolescent suicidal behavior.

EPILOGUE

Throughout this thesis we have sought to identify and evaluate the statistical data, the risk factors and precipitants, the pubertal developmental changes (both cognitive and social) and the types of prevention methods concerning suicidal behavior between the ages of 10 years to 14 years. Several major ideas arise from this discussion. There is a need to design studies and collect data specifically related to suicidal behavior in children and early adolescents. Although the incidence of suicide in this age group is low, the data show that suicide attempts are sufficiently great to warrant our attention. We have identified family functioning, feelings of hopelessness, boy-girl friend relationships and school related problems as important precipitating factors in suicidal behavior within this age group.

It would appear from the discussion of cognitive changes which occur during puberty that egocentrism and the concepts of the imaginary audience and the personal fable could be considered substantial influences on suicidal behavior in early adolescence. This premise would benefit from careful empirical research. Also research to determine the extent of knowledge among 10- to 14- year olds concerning concepts of death and dying would be useful.

It would appear that the School Transitional Environment Project (S.T.E.P.) prevention method is the most efficient in terms of youngsters affected, low cost, and least disruption to classroom teaching time.

Finally, when seeking answers to issues involving early adolescents one must be attuned to their ever changing cognitive, physical and psychological levels.

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